

EXHIBIT 12

**UNITED STATES DISTRICT COURT FOR THE
DISTRICT OF DELAWARE**

MICHAEL NINIVAGGI, JAKE MICKEY)
and CAILIN NIGRELLI, individually and)
on behalf of all other similarly situated,)

Plaintiffs,)

v.)

UNIVERSITY OF DELAWARE,)

Defendant.)

Civil Action No. 20-cv-1478-SB

HANNAH RUSSO, individually and on)
behalf of all others similarly situated,)

Plaintiff,)

v.)

UNIVERSITY OF DELAWARE)

Defendant.)

Civil Action No. 20-cv-1693-SB

EXPERT REPORT OF

BENJAMIN S. WILNER, Ph.D.

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I. Introduction & Summary of Opinions

Alvarez & Marsal Disputes and Investigations, LLC (“A&M”) has been retained by counsel representing the Defendant, University of Delaware (“UD”), to comment on the alleged damages in the aforementioned matter. I, Benjamin S. Wilner Ph.D., in my role as a Managing Director at A&M, am responding to the July 1, 2022 and August 1, 2022 Declarations of Mr. Steven P. Gaskin and Mr. Colin B. Weir and their respective testimony purporting to establish classwide damages in the aforementioned matter.

The named Plaintiffs, Mr. Michael Ninivaggi, Mr. Jake Mickey, Ms. Cailin Nigrelli and Ms. Hannah Russo,¹ claim that they were economically damaged by UD’s transition to remote classes during the Spring 2020 Semester in response to the COVID-19 pandemic and ensuing executive orders closing UD and all other schools throughout the State of Delaware. To calculate such alleged damages, Mr. Gaskin and Mr. Weir utilized a proposed “conjoint analysis” damages methodology (the “Gaskin-Weir Hypothetical Model”)² that they both admit, to their knowledge, has never been used in the real world by any higher education institution in the country to establish tuition pricing. Conjoint analyses are most traditionally utilized in market research for more basic consumer products, like dishwashers and microwaves, to provide one datapoint on how customers value certain components or features of those products. A student’s reason for selecting a particular educational experience given the associated tuition is complex and multidimensional and take into account a multitude of individualized factors such as geographic location, professors, programs, athletics and many others. Mr. Gaskin and Mr. Weir provide no academic or conjoint industry reference, assurance or argument as to why the Gaskin-Weir Hypothetical Model can be reliably used outside of the context for which the technique was developed and intended.

The Gaskin-Weir Hypothetical Model is fatally flawed, unreliable, and does not and cannot be used to reliably calculate any individual student’s alleged damages, let alone reliably formulaically calculate damages on a classwide basis across the Named Plaintiffs’ putative class. I summarize some, but not all, of the flaws discussed in this Expert Report regarding the Gaskin-Weir Hypothetical Model:

1. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it ignores actual, undisputed, real-world data that establish that most UD students re-enrolled in the Fall 2020 Semester, being charged at least the same tuition and differential charge List Prices as the Spring 2020 Semester at issue in this lawsuit while knowing that Fall 2020 Semester classes would potentially be fully online and campus access could be reduced. These actual, undisputed, real-world data establish the putative class members’ willingness to pay at least the same tuition for in-person and online instruction and that they suffered no damages, contrary to the allegations of the Named Plaintiffs, Mr. Gaskin and Mr. Weir. Mr. Gaskin and Mr. Weir ignored this actual real world data and constructed a hypothetical alternative reality for the purposes of litigation in order to incorrectly claim that students had a lower willingness to pay and overpaid tuition during the Spring 2020 Semester (Section IV).

¹ We are advised the parent Plaintiffs and their claims have been dismissed by stipulation.

² A “conjoint analysis” is a market research approach typically used by companies and other sellers to assess relative values that consumers place on products and services they sell.

2. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it does not “simulate an [accurate] undergraduate education choice experience” relevant to the decisions that the putative class members faced during the Spring 2020 semester. Mr. Gaskin told all of his survey respondents to assume that they were making choices as if they were enrolling at universities as an undergraduate and that the COVID-19 pandemic should not be a factor in their decisions. On the other hand, actual, undisputed, real-world facts demonstrate that the COVID-19 pandemic forced all universities across the country to close and/or pivot to online learning (Sections V and VI). In sum:
 - a. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it wrongly assumes survey respondents had a choice between in-person and virtual education during the Spring 2020 semester when, in the real world, no such choice existed as a result of the COVID-19 pandemic (Section VI.E.1.a).
 - b. In building a proper damages model, one must construct a proper But For World, (what the plaintiffs’ economic position would have been, but for the defendant’s allegedly improper action)), and a proper Actual World, the plaintiffs’ actual economic position. By telling the survey respondents to ignore the COVID-19 pandemic, Mr. Gaskin and Mr. Weir did not properly simulate the Actual World that putative class members actually faced (Section VI.E.1.a).
3. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it creates choice options that do not exist in the real world and provides no basis to establish that any combination of attributes of any of the hypothetical universities actually exists, could exist or is potentially planned to exist at any university such that survey respondents could have ever been presented with such a “choice” in the real world (Section V.A.1).
4. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it wrongly defines the “Closure of the University Campus” to include lost “access to campus facilities, student activities, health services, and other opportunities,” most of which are not provided in exchange for the students’ tuition payments. Rather, most of the campus facilities, student activities, health services, and other opportunities are paid for through specific fees that UD charged students such as Student Comprehensive, Student Wellbeing and Student Center fees. Mr. Gaskin and Mr. Weir were engaged solely to calculate the students’ alleged *tuition* overpayment. Their scope of assignment did not address the fees students were charged. As a result, their methodology is flawed and unreliable because it conflated UD’s action’s effect on both tuition **and** fees, when they only intended to measure and assess alleged damages on the former. Consequently, the alleged losses they calculated associated with the “Closure of the University Campus,” improperly includes services unrelated to tuition (Section VI.E.2). Moreover:
 - a. Even if those ‘fee services’ were properly included, the Gaskin-Weir Hypothetical Model fails to account for students’ individualized uses, needs, and value beliefs regarding those services (Section VI.E.2).
5. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it told survey respondents to make their choice assuming that they were enrolling as first-time students, contradicting the real-world fact that all Plaintiffs and nearly all other students enrolled at UD

at the time of the “Closure of the University Campus” in the Spring 2020 Semester had already been enrolled at UD during the Fall 2019 Semester. By instructing survey respondents to make an assumption that placed them in a different position than Plaintiffs and putative class members, the Gaskin-Weir Hypothetical Model fails to simulate a real-world choice option. This improper instruction (and the data resulting from this instruction) do not properly simulate the Actual and But For Worlds (Section V.I.E.1).

6. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it ignores the highly individualized nature of consumer demand and preferences, particularly with respect to selecting a college or university, all of which establish that each student would ascribe different value to different UD attributes and would make different choices based on those attributes, many of which are missing from the Gaskin-Weir Hypothetical Model, including but not limited to (Sections V.E.1.b & IX):

- a. Geographic proximity
- b. Family history/legacy
- c. Types and availability of majors
- d. Reputation with anticipated employers
- e. Internship programs
- f. Access to and quality of faculty in particular majors
- g. Sports
- h. Greek life
- i. Class size
- j. Guidance and counseling support
- k. Campus safety
- l. Past graduates’ career outcomes and job opportunities for graduates

In fact, U.S. News, one of the sources Mr. Gaskin allegedly used to determine the relevant attributes, characterizes UD using attributes omitted from the Gaskin-Weir Hypothetical Model such as its long history since being founded in 1743, suburban setting in downtown Newark, 400+ student clubs/organizations, large Greek system, Division I athletics, and proximity to other large cities (Philadelphia and Baltimore). By excluding the attributes its own source highlights to define UD from the survey respondents’ choice options, the Gaskin-Weir Hypothetical Model does not simulate real-world choice options, the Actual World or the But For World.

7. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it utilizes alleged competitor universities that Mr. Gaskin self-selected without any factual basis to establish that actual, real-world UD students consider these universities as competitors to UD and/or as alternative options when deciding to attend UD. In fact, of the four Named Plaintiffs, only Ms.

Russo applied to any of the schools Mr. Gaskin included (University of Maryland – College Park)—though she did not apply to any of the other 4 schools included, and the other three Named Plaintiffs applied to none of them—establishing that the Gaskin-Weir Hypothetical Model does not simulate the real-world choice options, the Actual World or the But For World for UD students (Section VI.E.1.a).

- a. In addition, Mr. Gaskin’s conjoint survey is further flawed because he allowed unrepresentative survey participants to take part in the survey that may have only applied to 24 different schools (see Opinion 9.a below), but he still only included the hypothetical purchase choices for his self-selected 4 competitor schools.
8. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it is not based on adequate pretesting as Mr. Gaskin (1) did not provide evidence from his alleged pretest that interactive terms would not be needed in his model and (2) did not utilize pretests as a screening task to identify the most relevant attributes, “especially for high-involvement products and services described by many attributes,” like colleges and universities, as his supportive authorities require (Section VIII.A).
 9. The Gaskin-Weir Hypothetical Model is flawed and unreliable because survey respondents were not representative of students who were enrolled at UD during the Spring 2020 Semester since (Section VIII.B & VIII.C):
 - a. Mr. Gaskin’s survey targeted U.S. residents over 16 years old who had personally applied to, been accepted, or attended UD or one of its (misdefined) 24 different competitors for undergraduate education in the past 20 years, which is a very different population than, and is unrepresentative of the putative class. Consequently, Mr. Gaskin’s survey and the results of the Gaskin-Weir Hypothetical Model are based on people who could be over 55 years old and only applied, but did not attend schools like Auburn University, University of Oregon, University of Utah, and University of California - Merced;
 - b. Only 17 of the 994 respondents, just 1.7%, were actually confirmed to have attended UD, which is potentially the most relevant and most representative of the putative class (though they do have sizable differences with the putative class). Because all other respondents did not attend UD, it is unquestioned that 98.3% of survey respondents are not representative of the putative class based on their actual university attendance, and Mr. Gaskin undertook no measures to overcome such differences;
 - c. The ages of survey respondents were not representative of students who attended UD during the Spring 2020 Semester, 96% of whom were less than 24 years old, whereas only 34% of Mr. Gaskin’s survey respondents were between the ages of 16 and 29, and others above age 55 were multiple decades removed from college;
 - d. Residences of survey respondents were not representative of students who attended UD during the Spring 2020 Semester, as 41% of actual UD students were from Delaware and were considered to be in-state students, whereas only 3.4% of survey respondents lived in Delaware.

10. The Gaskin-Weir Hypothetical Model is flawed and unreliable because Mr. Gaskin did not demonstrate that the number of respondents he included in his survey are sufficient to generate statistically precise conclusions. Not only did he misquote a text on sufficient sample sizes in his Report, but he also testified that the Law of Large Numbers implies that a sample size is sufficient, when in fact, that Law only identifies formulas that could be utilized to test sample size sufficiency (VI.I).
11. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it failed to properly statistically analyze the survey results, which analysis shows that the results are unreliable because (Section VII):
 - a. The survey generated a wide range of overcharge percentage results;
 - b. Mr. Gaskin arbitrarily selecting the most “conservative” result from his survey does not imply that he generated a scientifically reliable result; and
 - c. The 65% hit rate that Mr. Gaskin calculated establishes that more than 1/3 of the time the model fails to accurately predict respondent behavior.
12. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it suffers from a low response and completion rate, including (Section VIII.D):
 - a. A mere 0.2% of the 15,000 UD students Mr. Gaskin attempted to enlist in the survey (the “Student List”) responded, which he conceded is “abysmally low,”;
 - b. A mere 1% of total survey invitations sent were validly completed, with only 0.1% from the Student List;
 - c. There were statistically significant differential response and completion rates between non-Student and Student List survey invitees.

Such data requires evidence that the nonresponse implicit in the Gaskin survey did not bias the survey results. It is very likely that different alleged price premiums for in-person versus online education (and any resulting alleged damages) would result if the Gaskin-Weir Hypothetical Model included data obtained from students and survey respondents who did not respond to the survey.

13. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it does not account for required supply side factors, is not based on actual prices, and wrongly imputes market indifference to survey respondents. Not only do the two purported supply side factors that Mr. Gaskin and Mr. Weir attempt to use lack academic and/or authoritative support, but the Gaskin-Weir Hypothetical Model did not even properly apply those two factors (Section VI.G).
14. The Gaskin-Weir Hypothetical Model is flawed and unreliable because Mr. Gaskin performed an improper market simulation, which is the second step of his analysis, by only considering a hypothetical “market” that only included two “products” with fixed attributes, and levels. To properly perform a market simulation, Mr. Gaskin should have at least included all of the allegedly relevant comparable “products” (e.g., universities), attributes and attribute levels that

occurred in the Actual World and would have occurred in the But For World when he determined his respondents' preferences, which is the first step of his analysis (Section VI.H).

15. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it is based on List Prices, not the actual tuition students paid. Mr. Gaskin and Mr. Weir did not analyze the relevant Net Price students pay, as survey respondents were wrongly told that the tuition prices in the survey did not include any changes in the amount they would pay due to financial aid, work-study, scholarships, or other forms of tuition support, all of which are significant real-world factors that affected the Named Plaintiffs' and putative class members' analyses and decisions (Section VI.F.2).
16. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it selectively ignores the survey data establishing that determining each putative class members' alleged damages requires highly individualized analysis such as (Section VII.B):
 - a. Over 25% of the 994 survey respondents preferred virtual classes with no access to campus to in-person classes and campus access.
 - b. Using confidence intervals that Mr. Gaskin failed to present, the survey reveals data on respondents' individualized attribute preferences, which undermine the validity of the Gaskin-Weir Hypothetical Model, including that:
 - i. University Name is the most important non-tuition attribute, establishing the importance of correctly including true competitor universities, which Mr. Gaskin failed to do;
 - ii. Student-faculty ratio, Ethnic Diversity Index, and Undergraduate Teaching Ranking, which are all attributes Mr. Gaskin self-selected, are not highly valued by the survey respondents, implying that other more relevant attributes should have been included in Mr. Gaskin's survey, which likely would increase the accuracy of Mr. Weir's and his results, all else equal.
 - c. The data show that more recent college applicants and males value in-person education less than older college applicants and females, respectively.
17. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it violates the directives of the authoritative sources upon which it is based (Section VI):
 - a. Mr. Orme, the lead authority upon which the Gaskin-Weir Hypothetical Model is based, recently stated that a competitive simulation approach more accurately determines willingness to pay than the two product alternatives simulation upon which the Gaskin-Weir Hypothetical Model relies;
 - b. It misapplies decision theory and contradicts the Named Plaintiffs' testimony regarding how they made their real-world decisions to attend UD, resulting in biased, unreliable conclusions that lack a factual basis in this case;
 - c. It is intended to calculate market shares, but Mr. Orme wrote that conjoint models do not predict market share, rendering the Gaskin-Weir Hypothetical Model flawed

because market shares are integral to the price and price differences that they attempted to calculate;

- d. It fails to account for and/or reduce hypothetical bias by undertaking any of the potential remedies suggested by Mr. Orme;
 - e. It ignores the fundamental segmenting requirement of Mr. Orme. Because the Gaskin-Weir Hypothetical Model is based upon overall averages, it does not look at student groupings for which UD separately sets prices. For example, as discussed above, in-state students are charged different List Prices than out-of-state students.
 - f. Because the Gaskin-Weir Hypothetical Model is based on the “average” respondent, it does not analyze the marginal respondent as is required by most microeconomic pricing models;
 - g. Mr. Gaskin did not and cannot demonstrate that the model he employed was appropriate, which is particularly important here since Mr. Gaskin testified that he has never developed and is not aware of other conjoint models for university tuition in the real-world. As a result, Mr. Gaskin did not comply with Mr. Orme’s recommendation that one should possess prior knowledge and experience running conjoint models in the relevant industry.
18. Mr. Weir’s alleged “Overpayment Damages” model is flawed and unreliable because it improperly purports to translate UD’s semester-based List Prices into a daily List Price (*i.e.*, Mr. Weir’s Prorated Damages Methodology). Representative flaws in this approach include (Section IX):
- a. The model improperly assumes that all students had the same total days with online classes and no campus access as well as the same number of total days of in-person classes and campus access, but-for the “Closure of the University Campus,” although this varies by student (*e.g.*, some students may have had earlier finals and left campus before the end of the semester regardless of Delaware’s campus closure decision).
 - b. The model fails to account for decreasing marginal utility from in-person classes and campus access, which varies by student.
19. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it ignores research establishing that students are generally ignorant about the exact amounts they paid for tuition. Additionally, Mr. Gaskin’s respondents were asked questions assuming that they were students who had sole decision making power to select their university. On the other hand, research has established that this selection is often a group activity with other family members and decisionmakers, where students tend to focus more on the college’s benefits and parents tend to focus more on costs. Not including the opinions of these other decisionmakers further biases, the results of the Gaskin-Weir Hypothetical Model (Section IV.C).
20. The Gaskin-Weir Hypothetical Model is flawed and unreliable because it ignores actual real-world data establishing that putative class members received similar value during the Spring 2020 Semester as they received in prior semesters [REDACTED]

██████████ graduation rates increased, average starting salaries of UD graduates increased, and a number of on-campus services remained available during the Spring 2020 Semester. Additionally, UD diplomas received after the Spring 2020 Semester continued to provide a strong signal about a student's ability as a prospective employee. The Gaskin-Weir Hypothetical Model also ignores the highly individualized and subjective nature of each student's experience during the Spring 2020 Semester and the value they received (Section IV.B, IX & X).

21. The Gaskin-Weir Hypothetical Model is flawed and unreliable because, even if the Gaskin-Weir Hypothetical Model reliably generated conclusions about tuition, which it does not, such a conclusion by itself does not establish that any individual student actually was damaged. Whether a student was damaged is a highly individualized analysis that must additionally account for factors such as changes in student aid, expected family contributions, and other economic considerations. These factors likely would offset any changes in tuition implied by the Gaskin-Weir Hypothetical Model. Mr. Gaskin and Mr. Weir ignore and do not account for such considerations (Section XI.A).

Mr. Weir's alleged "Return of Tuition for Missed Days" calculation is flawed and unreliable and has some similar critiques that apply to the Gaskin-Weir Hypothetical Model. The critiques include:

22. The model improperly assumes that all students had the same number of missed days of class, although this varies by student (e.g., some students may not have had classes at all in their schedules on the Thursday/Friday of March 12 – 13, 2020, when the campus closed) (Section IX).
23. Similar to Opinion 18.a., the model improperly assumes that all students had the same total days in the semester but-for the "Closure of the University Campus," although this varies by student (e.g., some students may have had earlier finals and left campus before the end of the semester regardless of Delaware's campus closure decision) (Section IX).
24. Similar to Opinion 18.b, the model fails to account for decreasing marginal utility from in-person classes and campus access, which varies by student (Section IX).
25. The model overstates Net Prices Students Paid. Instead, because he only subtracted institutional aid from Delaware's List Prices, Mr. Weir's calculations are based on the Net Prices Delaware Received, not the Net Prices Students Paid. Because the former exceeds the latter, Mr. Weir overstated alleged damages (Section VI.G.5.a).
26. Similar to Opinion 20, the model ignores actual real-world data establishing that putative class members received similar value during the Spring 2020 Semester as they received in prior semesters ██████████ graduation rates increased, average starting salaries of UD graduates increased, and a number of on-campus services remained available during the Spring 2020 Semester. Additionally, UD diplomas received after the Spring 2020 Semester continued to provide a strong signal about a student's ability as a prospective employee. The Gaskin-Weir Hypothetical Model also ignores the highly individualized and subjective nature of each student's experience during the Spring 2020 Semester and value they received (Section IV.B, IX & X).

27. Similar to Opinion 20, the model does not establish that any individual student actually was damaged. Whether a student was damaged is a highly individualized analysis that must additionally account for factors such as changes in student aid, expected family contributions, and other economic considerations that could offset any alleged damages (Section XI.A).

I generated these conclusions by reviewing the documents listed in *Exhibit 1*.³ I respectfully reserve the right to modify and/or expand my opinions as I obtain and analyze additional information.

A&M is compensated for its services on an hourly basis and is being reimbursed for out-of-pocket expenses. A&M is compensated at a rate of \$745 per hour for my time. Other individuals from A&M also provided assistance in this matter; their hourly rates range from \$425 to \$575.⁴

II. Qualifications

My curriculum vitae (*Exhibit 2*) details my credentials, testimony, publications and awards.

I am a Managing Director at A&M. I have served as an expert witness and business consultant performing economic and statistical analyses in a great variety of engagements, including financial analysis, contract losses, and a wide range of class action, intellectual property, insurance claim, lost profits and lost income matters. I also received a special commendation from the Commissioner of U.S. Customs and Border Protection for revising a \$2.5 billion annual tariff by analyzing product bundles, rather than individual imports.

I hold a Bachelor of Arts degree, Magna cum Laude with Distinction in Major in Mathematics and Economics from the University of Pennsylvania as well as a General Course degree in Mathematics & Statistics from the London School of Economics. I was awarded a Ph.D. in Managerial Economics and Decision Science (“MEDS”) from the Kellogg Graduate School of Management at Northwestern University. MEDS studies how consumers, governments and businesses make decisions in a wide variety of economic and other environments.

I served as a professor of economics, finance, and statistics at the University of Michigan, the University of Iowa, Northwestern University, and the Helsinki School of Economics.

My research has been published in peer reviewed academic journals including the *Journal of Finance*, the leading academic journal in finance. I have been awarded research grants from multiple universities and the National Science Foundation (“NSF”). My research has been cited by over 800 other papers.⁵ I also served as a referee for multiple academic journals and textbooks.

³ I have not had the chance to fully review the Weir deposition because the rough transcript was only provided prior to the filing of this Expert Report. I reserve the right to further comment on opinions he expressed in his deposition at a later date.

⁴ No one who has contributed to this engagement has any known financial interest in any party to the matter. A&M’s compensation is neither based nor contingent on the results of this analysis. This Report is provided solely for use in the matter described in the caption at the top of this Report. This Report is not to be used with, circulated, quoted or otherwise referred to in whole or in part for any other purpose, or in any other document without the express written consent of A&M.

⁵ https://scholar.google.com/scholar?hl=en&as_sdt=0%2C14&q=benjamin+wilner&btnG= viewed on October 19, 2021.

The provider of the software Mr. Gaskin utilized wrote that “[a]t the heart of it, conjoint analysis is just a designed regression experiment.”⁶ Not only did I teach regression analyses at multiple universities, but I was taught regression analyses by Nobel Prize winner Lawrence R. Klein, who won for building regression models, during my three years as a research assistant to him.

Mr. Gaskin also testified that conjoint analyses are a form of decision theory.⁷ As part of my decision science doctoral program, I studied under Roger Myerson, who won the 2007 Nobel Prize in Economics for decision theory, in particular, for analyzing environments that cause respondents to truthfully and accurately reveal their full preferences, as well as Dale Mortensen, who applied decision theory in his study of labor markets, which led to his winning the 2010 Nobel Prize in Economics.

One of my areas of research within decision theory was experimental economics, which is the application of experimental methods to study economic questions. Conjoint analyses are one branch of experimental economics. For my NSF grant, my coauthors and I statistically analyzed data from a consumer buying behavior survey we conducted that determined the prices respondents would pay for products that could be sold in bundles. My undergraduate advisor, Colin Camerer, a MacArthur Genius Award Winner, utilizes experimental economics to study the psychological forces and their deeper neuroscientific foundations that influence economic decisions involving individuals and markets. The former President of the University of Chicago relied on my undergraduate thesis as the theoretical basis for one of his published research papers on utilizing experimental economics surveys to generate economic conclusions.

III. Case Background

COVID-19 caused business and school disruptions throughout the country, especially during Spring 2020. UD was no exception.

UD’s Spring 2020 Semester began on February 10, 2020.⁸ On March 11, 2020, the University had its first confirmed case of COVID-19 in the State of Delaware.⁹ On March 12, 2020, the Governor of the State of Delaware declared a State of Emergency imposing work and travel restrictions.¹⁰ UD took mitigating actions by canceling classes two days before Spring Break on March 12th, moving most students out of university-owned housing by March 22nd and extending the break a week through March 29th.¹¹ To aid professors’ preparation for this move, UD held trainings during this time in anticipation of remote teaching.¹² UD began virtual instruction on Monday, March

⁶ Orme, Bryan K. & Chrzan, Keith, *Becoming an Expert in Conjoint Analysis – Choice Modeling for Pros*, Second Edition, 2021, (“Orme & Chrzan”), p. 109.

⁷ Deposition of Steven Gaskin, dated August 12, 2022, (“Gaskin Deposition”), p. 103.

⁸ Deposition of Robin Morgan, dated May 23, 2022 (“Morgan Deposition”), exhibit 49.

⁹ UD_0072695.

¹⁰ UD_0239750-UD_0239767.

¹¹ Morgan Deposition, exhibit 49 & 50 & UD_NIG0000003.

¹² Defendant The University of Delaware’s Answers and Objections to Plaintiffs’ First Set of Interrogatories, interrogatory No. 14.

30, 2020.¹³ The last day of exams for the Spring 2020 Semester was on May 28, 2020, and students received their enrolled credits.

The Gaskin-Weir Hypothetical Model focuses on tuition changes that allegedly should have resulted from UD's decisions. However, as discussed below, UD did not uniformly charge a single rate of tuition for all undergraduate students. UD posted different List Prices for its tuition during the Spring 2020 Semester based upon enrollment, resident and program status.¹⁴ For example, not only were full-time and part-time undergraduate students charged different List Prices, but they were differently structured. I present the List Prices of tuition for the Spring 2020 Semester below. Additionally, as noted in **Section VI** below, the vast majority of students did not pay these List Prices.

In this matter, the Named Plaintiffs seek refunds for tuition payments made to UD for the Spring 2020 Semester. *Figure 1* below shows that the List Price of UD's tuition varies with enrollment, resident and program status. As discussed below, most students paid substantially less than these List Prices, with some students receiving scholarships or other financial aid covering the full List Price of tuition.

Figure 1	
Undergraduate List Price Tuition for the Spring 2020 Semester	
Enrollment Status	2019/20
<i>Full-Time (Flat Rate Basis)</i> ¹⁵	
Delaware Resident	\$6,365
Non-Delaware Resident	\$17,080
<i>Part-Time (Per Credit Rate Basis)</i> ¹⁶	
Delaware Resident	\$530
Non-Delaware Resident	\$1,423
<i>Differential Charge by Program (Flat Rate Basis)</i> ¹⁷	
Nursing	\$750
Lerner College of Business & Economics	\$750
College of Engineering	\$1,250

First, as shown in Figure 1, the List Price of tuition varies for full-time and part-time students. Students are considered full-time if they are enrolled in 12 or more credits per semester and part-time if enrolled in less than 12 credits. Full-time students are charged a flat rate for their tuition, while part-time students are charged on a per credit basis.

Second, the List Price tuition varies for Delaware residents and non-Delaware residents. The Spring 2020 Semester List Price for Delaware residents was \$6,365 compared to \$17,080 for out of state students.

¹³ Morgan Deposition, exhibit 50.

¹⁴ List Prices refer to the tuition and fees as published in UD's catalogs and on its website.

¹⁵ UD_0188072.

¹⁶ UD_0188072-UD_0188073.

¹⁷ UD_0188073.

Third, the List Price tuition for students enrolled in the Nursing program, Lerner College of Business & Economics, and the College of Engineering pay a higher rate for their tuition. According to UD, this charge represents the increased costs incurred for the university to deliver these programs.¹⁸ For example, for the Spring 2020 Semester, UD's Nursing program and Lerner College of Business & Economics charged an additional \$750 per semester and the College of Engineering charged an additional \$1,250 per semester. However, students that were enrolled in these programs as of Spring 2018 received a \$250 credit per semester if enrolled full-time during the Spring 2020 Semester or a \$125 credit per semester if enrolled part-time.¹⁹

IV. Actual Data – *UD's Fall 2020 Reenrollment Numbers* – Contradicts the Plaintiffs' Damages Theory

First and foremost, the Gaskin-Weir Hypothetical Model is flawed and unreliable because it ignores actual, undisputed, real-world data that establish that most students re-enrolled in the Fall 2020 Semester, being charged at least the same tuition and differential charge List Prices as the Spring 2020 Semester at issue in this lawsuit while knowing that Fall 2020 Semester classes would potentially be fully online and campus access could be reduced. These actual, undisputed, real-world data establish the putative class members' willingness to pay at least the same tuition for in-person and online instruction and that they suffered no damages, contrary to the allegations of the Named Plaintiffs, Mr. Gaskin and Mr. Weir. Mr. Gaskin and Mr. Weir ignored this actual real world data and constructed a hypothetical alternative reality for the purposes of litigation in order to incorrectly claim that students had a lower willingness to pay and overpaid tuition during the Spring 2020 Semester.

The Gaskin-Weir Hypothetical Model implies that 1) students received reduced benefits after UD's transition to virtual education and 2) when faced with the option to enroll in an education environment at UD that they knew would contain virtual components, students would only enroll if tuition was reduced.

This Section presents actual, contemporaneous data that demonstrate that putative class members were not damaged by UD's transition to virtual education and, even if they were, damages would be individualized. In particular, students received similar benefits and re-enrolled at UD in subsequent semesters knowing that the education would be conducted, at least in part, online and campus access would be reduced, having "online unreduced" tuition and fees at the time and point of sale paid on their behalf. This implies that UD students likely would have had a similar amount in tuition paid on their behalf for remote classes and services during the Spring 2020 Semester as they actually did.

Almost all UD undergraduates, including all the Named Plaintiffs, were confronted with the precise question the Gaskin-Weir Hypothetical Model attempts to answer. As a result, one only has to look at their actual behavior to determine if there would be a price reaction to students receiving remote classes and services in the middle of a global pandemic. As discussed below,

¹⁸ Ibid.

¹⁹ Ibid.

actual behavior indicates that there would not be a material price reduction, if any at all, because of UD's transition to remote classes in response to COVID-19.

Forecasting models, like the Gaskin-Weir Hypothetical Model, can generate incorrect results because they often contain a large number of explicit and implicit assumptions that may or may not be accurate. In fact, Mr. Gaskin noted that such assumptional errors could cause the results of a carefully constructed conjoint model "to not match that well with reality."²⁰ Sections VI-XI below, show that the Gaskin-Weir Hypothetical Model was not carefully constructed and contain numerous assumptional errors.

On the other hand, actual data often remove such assumptional uncertainties. As a result, it is axiomatic that actual data are generally preferable to forecasting models based on hypotheticals as the basis for economic conclusions.²¹

A. Putative Class Members Elected to Pay A Similar Price for Semesters Taught Under Similar Conditions to the Spring 2020 Semester

Students who enrolled in the Fall 2020 Semester (or the Summer 2020 Semester) knew that some or all of their classes would be conducted remotely and that they would not have access to full campus activities for all or part of that semester.²² Students knew no later than July 22, 2020, that many Fall 2020 Semester courses would not be campus-based.²³

UD's List Prices for tuition and the differential charge were at least the same in the Fall 2020 Semester as the Spring 2020 Semester.²⁴

All non-graduating UD undergraduates encountered the following question prior to the start of the Fall 2020 Semester:

*Will you enroll in the Fall 2020 Semester knowing that you will not have full in-person access to campus facilities and some or all classes will be taught remotely and that the tuition rate will not be reduced?*²⁵

²⁰ Gaskin, Steve "Navigating the Conjoint Analysis Minefield: Design considerations for product development applications." *Visions*, Quarter 1, 2013 ("Gaskin"), p. 23.

²¹ For example, Mr. Gaskin did not rely on actual UD data for the attributes UD students care about or UD's competitors in his survey. See Affidavit of Rodney Morrison, UD's Vice President of Enrollment Management, dated September 2, 2022 ("Rodney Affidavit").

²² UD_0008108- UD_0008109.

²³ Ibid.

²⁴ UD_0188072 & UD_0240173 & <https://catalog.udel.edu/content.php?catoid=40&navoid=6649>, viewed on August 30, 2022. Undergraduate List Price tuition rates per semester for 2020/21 continued to be \$6,365 and \$17,080 for full-time residents and non-residents, respectively. For part-time undergraduates, the List Price per credit hour for residents and non-residents continued to be \$530 and \$1,423 per hour. However, the differential charge increased in 2020/21 for the Lerner College of Business & Economics and the College of Engineering.

²⁵ Mr. Ninivaggi was faced with a similar question: "*Will you enroll in the Summer 2020 Semester knowing that you will not have full in-person access to campus facilities and some or all classes will be taught remotely and that the tuition rate will not be reduced?*" as he graduated in August 2020.

UD enrollment data demonstrate that **most** students, including all putative class members, **agreed** to be charged full tuition prices in the Fall 2020 Semester in an environment similar to the one for which the Plaintiffs now claim they were overcharged. Specifically, 89.7% of undergraduates who were in their first year at UD during the Spring 2020 Semester reenrolled for the Fall 2020 Semester despite the tuition remaining the same.²⁶

This contradicts Mr. Gaskin and Mr. Weir's claim that **all** putative class members were overcharged at the time and point of sale. UD students' **actual decisions** demonstrate that most did not believe they were overcharged at the time and point of sale for the education they received during the online portion of the Spring 2020 Semester. Consequently, at a minimum, any student who reenrolled at UD for the Summer or Fall 2020 Semester was not damaged at the time and point of sale and should be excluded from the putative class. Individualized analyses would be required to determine whether any UD students who did not reenroll for the Fall 2020 Semester were damaged. For example, students elect to not reenroll in universities for many reasons other than the circumstances at issue in this lawsuit.²⁷

Mr. Gaskin and Mr. Weir erroneously claimed that student enrollment in the Fall 2020 Semester is irrelevant because putative class members did not have a choice between what they consider to be the Actual and But-For Worlds.²⁸ Section V.A.1 below demonstrates the flaw in this claim. Mr. Weir also erroneously claimed that the Fall 2020 Semester could not be used as a benchmark comparison to the Spring 2020 Semester because tuition stayed the same as opposed to an annual increase.²⁹ However, Mr. Weir did not analyze how much annual tuition increases are at UD. Nor did he demonstrate that UD's historical tuition increases track inflation. Without such a demonstration, Mr. Weir cannot claim that inflation is a proper benchmark for what UD's tuition changes should be.

While tuition remained the same for the Fall 2020 Semester compared to the Spring 2020 Semester for some undergraduates, UD did increase the tuition for the Lerner College of Business & Economics and the College of Engineering. **Figure 2** shows the annual increases in the List Prices per semester of tuition by college from 2018-19 to 2021-22, which contradicts Mr. Weir's claims.³⁰

²⁶ UD_0240140. Additionally, Mr. Ninivaggi reenrolled in UD's Summer 2020 Semester.

²⁷ <https://collegestats.org/articles/beware-the-top-5-reasons-for-dropping-out-of-college/>, viewed on August 9, 2021.

²⁸ Gaskin Deposition, pp. 161-162 & Rough Deposition Transcript of Colin B. Weir, dated August 19, 2022, ("Weir Rough Deposition"), pp. 96-101.

²⁹ Weir Rough Deposition, p.100.

³⁰ UD_0240091, UD_0240132, UD_0240173 &

<https://web.archive.org/web/20211025202119/https://www.udel.edu/students/student-financial-services/coa/>, viewed on August 30, 2022.

Figure 2 Tuition per Semester by College by Year ³¹				
Description	2018-2019	2019-2020	2020-2021	2021-2022
UD In State				
Tuition	\$6,125	\$6,365 (3.9%)	\$6,365 (0.0%)	\$6,490 (2.0%)
Tuition – Nursing	\$6,625	\$7,115 (7.4%)	\$7,115 (0.0%)	\$7,240 (1.8%)
Tuition – Lerner College of Business & Economics	\$6,625	\$7,115 (7.4%)	\$7,365 (3.5%)	\$7,490 (1.7%)
Tuition – College of Engineering	\$6,625	\$7,615 (14.9%)	\$8,365 (9.8%)	\$8,490 (1.5%)
UD Out of State				
Tuition	\$16,440	\$17,080 (3.9%)	\$17,080 (0.0%)	\$17,420 (2.0%)
Tuition – Nursing	\$16,940	\$17,830 (8.1%)	\$17,830 (0.0%)	\$18,170 (1.9%)
Tuition – Lerner College of Business & Economics	\$16,940	\$17,830 (8.1%)	\$18,080 (1.4%)	\$18,420 (1.9%)
Tuition – College of Engineering	\$16,940	\$18,330 (8.2%)	\$19,080 (4.1%)	\$19,420 (1.8%)

Therefore, actual UD student behavior shows that putative class members were not injured by the transition to virtual instruction, contrary to the forecasts of the model underlying the Gaskin-Weir Hypothetical Model. As discussed above, actual data are generally preferable to forecasting models based on hypotheticals as the basis for economic conclusions implying that the Gaskin-Weir Hypothetical Model should not be relied upon.

B. Putative Class Members Received Similar Value During the Spring 2020 Semester

The Gaskin-Weir Hypothetical Model implies that students would demand lower tuition prices because they received lesser benefits after the transition to virtual education during the Spring 2020 Semester. However, several contemporaneous metrics, as opposed to the hypothetical hindsight analyses of Mr. Gaskin and Mr. Weir, show that on average, students received similar, if not greater, value from their virtual classes during the Spring 2020 Semester. Furthermore, individualized analyses on a student-by-student basis would be required to determine the extent of this value for the putative class members. As Mr. Ninivaggi testified, some students may value online instruction differently than others.³²

First, at its core, UD's mission is to educate its students. It is noteworthy that the majority of the Named Plaintiffs received their highest GPAs to date during the Spring 2020 Semester as

³¹ UD_0188072-UD_0188073, UD_0240132, UD_0240173, <https://web.archive.org/web/20211025202119/https://www.udel.edu/students/student-financial-services/coa/>, viewed on August 30, 2022, and <https://catalog.udel.edu/content.php?catoid=18&navoid=1257>, <https://catalog.udel.edu/content.php?catoid=47&navoid=8874> both viewed on September 1, 2022.

³² Deposition of Michael Ninivaggi, dated June 9, 2022 ("Ninivaggi Deposition"), p. 138.

demonstrated in *Figure 3* below.³³ Such data are consistent with students' education not diminishing during the virtual class portion of the Spring 2020 Semester.³⁴ As a result, Mr. Gaskin and Mr. Weir further cannot claim that putative class members received a diminished value from the virtual class portion of the Spring 2020 Semester.

Figure 3 GPA by Semester for Named Plaintiffs				
Description	Spring 2017	Spring 2018	Spring 2019	Spring 2020
Jake Mickey	n/a	n/a		
Cailin Nigrelli	n/a	n/a		
Michael Ninivaggi				
Hannah Russo	n/a	n/a	n/a	

Second, another core UD mission is to graduate its students. *Figure 4* below shows UD's graduation rates increased from 2019 to 2020 and was maximal in 2020 as compared to 2017 to 2019.³⁵ Such data are consistent with students' education not universally diminishing during the virtual class portion of the Spring 2020 Semester. As a result, Mr. Gaskin and Mr. Weir further cannot claim that putative class members received a diminished value from the virtual class portion of the Spring 2020 Semester.

Figure 4 Six-Year Graduation Rates				
Description	2017	2018	2019	2020
% Graduated	83.2%	82.3%	80.8%	84.1%

Third, many students attend institutions of higher learning in order to enhance their earnings. *Figure 5* below shows that average starting salaries of UD graduates increased after the 2019 – 2020 academic year.³⁶ This increase occurred in spite of the 2020 COVID-19 recession, which significantly impacted the job market. Economy-wide, there was a decrease in employment and labor force participation rates of recent college graduates in 2020, which exceeded the decline recent college graduates experienced during the Great Recession of 2008.^{37,38}

³³ UD_0242913, Deposition of Hannah Russo, dated June 9, 2022 ("Russo Deposition"), p. 182, Deposition of Jake Mickey, dated June 9, 2022 ("Mickey Deposition"), p. 29, Deposition of Cailin Nigrelli, dated June 9, 2022 ("Nigrelli Deposition"), p. 75.

³⁴ UD did offer an enhanced pass/fail option during the Spring 2020 Semester.

³⁵ UD_0240056-UD_0240057, UD_0240097 & UD_0240138. The six-year graduation rates reported by UD are tracked by the year the students entered as first-time, full-time freshmen through August of the sixth year.

³⁶ <https://www.udel.edu/apply/career-outcomes/#year=2018>, <https://www.udel.edu/apply/career-outcomes/#year=2019>, <https://www.udel.edu/apply/career-outcomes/#year=2020>, viewed on June 15, 2022.

³⁷ <https://www.pewresearch.org/fact-tank/2021/05/14/college-graduates-in-the-year-of-covid-19-experienced-a-drop-in-employment-labor-force-participation/> viewed on September 22, 2021.

³⁸ In fact, Mr. Ninivaggi testified that he secured employment immediately after Spring 2020 Semester (Ninivaggi Deposition, pp. 52-53) and his transcript and conversations with employers did not note an educational diminishment that Mr. Gaskin and Mr. Weir claim Mr. Ninivaggi experienced during the Spring 2020 Semester. Ninivaggi Deposition, p. 53.

Figure 5 Average Starting Salary	
Graduation Year	Average Annual Salary
2017 – 2018	\$53,466
2018 – 2019	\$53,532
2019 – 2020	\$55,351

Consequently, Figure 5 is consistent with students' education not being lessened during the virtual class portion of the Spring 2020 Semester. As a result, Mr. Gaskin and Mr. Weir cannot claim that putative class members received a diminished value from the virtual class portion of the Spring 2020 Semester.

Because Mr. Gaskin and Mr. Weir have not disputed that a degree from UD still provides a strong signal about a student's ability,³⁹ they cannot claim that students received a diminished value from the virtual class portion of the Spring 2020 Semester. Even if the value was diminished in some way, Mr. Gaskin and Mr. Weir did not demonstrate that the value was diminished relative to students at all other universities in the U.S. who similarly transitioned to virtual education during the Spring 2020 Semester.

Fourth, UD continued to provide some campus student services (e.g., student health and counseling services, career services, diversity, and inclusion programming, Esports) during the online portion of the Spring 2020 Semester.⁴⁰ It has even provided some additional services for students as a result of the pandemic (e.g., COVID-19 testing and contact tracing, PPE, sanitation stations, increased custodial services).⁴¹ The Gaskin-Weir Hypothetical Model does not account for such services to students and the individualized assessments required.

C. Mr. Gaskin and Mr. Weir Ignore Research Demonstrating that Students Generally Do Not Analyze The Amounts Charged by Universities

The Gaskin-Weir Hypothetical Model ignores research establishing that students are generally ignorant about what they are charged in tuition and fees, as well as research establishing that college selection, is often a group activity with other family members and decisionmakers, where students tend to focus more on the college's benefits and parents tend to focus more on costs.

For example, students are generally not focused on what they are charged in tuition and fees. One Harvard researcher concluded that "[e]vidence suggests that students are quite poor at estimating" the tuition and fees they pay their university.⁴² A Brookings study found that:

³⁹ Spence, Michael "Job Market Signaling." *Quarterly Journal of Economics*. 87(3), 1992, pp. 355–374 and Walsh, James D. "The Coming Disruption," *New York Magazine*, May 11, 2020.

⁴⁰ UD_0207353, UD_0009414, UD_0091079 & UD_0166007.

⁴¹ UD_0072700.

⁴² Dynarski, Susan and Judith Scott-Clayton "Financial Aid Policy: Lessons From Research" NBER Working Paper, 2013, p. 30.

[A] bare majority of respondents (52 percent) at a selective public university were able to correctly identify (within a \$5,000 range) what they paid for their first year of college....

Using nationally representative data, we find that about half of all first-year students in the U.S. seriously underestimate how much student debt they have, and less than one-third provide an accurate estimate within a reasonable margin of error.⁴³

Even though one survey found that more than half of respondents believed they knew “a lot or a good amount” about college costs, they significantly misestimated those costs.⁴⁴ A study of schools found that few students could accurately estimate fees.⁴⁵ These data are likewise individualized as studies have shown that specific demographics tend to be less knowledgeable about college tuition and fees.⁴⁶

Consequently, “[m]any students simply pay their tuition bills without actually reading the fine print.”⁴⁷

The Named Plaintiffs in this matter appear to be similarly unaware of the amounts they paid UD. Ms. Russo was under the assumption that the Spring 2020 Semester cost [REDACTED] when it actually cost under [REDACTED], after deducting her individualized refunds and financial aid.⁴⁸ Mr. Mickey testified that he believed his parents paid [REDACTED] for the Spring 2020 Semester, when just under [REDACTED] was paid on his behalf.⁴⁹

Additionally, the Gaskin-Weir Hypothetical Model assumes that the student is the only individual making their college choice when a student’s college selection is often a group activity with other family members and other individuals having a role in the college selection. These decision makers often take on different roles for example, where the students tend to focus more on a college’s benefits and their parents tend to focus more on costs. *The Parents Role in the College Admission Process* describes how parents frequently place financial constraints on a student’s college selection.⁵⁰ Such a separation further causes students to be not sufficiently financially savvy enough to make the decisions required by the Gaskin-Weir Hypothetical Model. Even if some students were sufficiently financially savvy and one disregards the individualized issues associated with such an assumption, the Gaskin-Weir Hypothetical Model does not survey parents

⁴³ Akers, Elizabeth J. and Matthew M. Chingos “Are College Students Borrowing Blindly?” Brown Center on Education Policy at Brookings, December 2014, p. 1.

⁴⁴ “Information Constraints and Financial Aid Policy” Judith Scott-Clayton, NBER Working Paper 17811, February 2012, p. 4.

⁴⁵ Jones, Willis A. and Michael J. Rudolph “Athletic Subsidies and College Costs: Are Students Paying for Rising Costs in Intercollegiate Athletics Spending?”, p. 7.

⁴⁶ For example, see Krsmanovic, Masha and Lou L. Sabina “Resident, Non-resident, and ‘The Other’: Examining Institutional and State Policies for International Student Residency Classification for Tuition Purposes and the Associated Cost of Fees” *Journal of Education Finance*, Volume 45, Number 4, Spring 2020, p. 544.

⁴⁷ Kaufman, Jonathan “State of the Unions: The Impact of *Janus* on Public University Student Fees” *Georgia Law Review*, Vol 54, 2020, p. 759.

⁴⁸ Russo Deposition, p. 35 & UD_0187204.

⁴⁹ Mickey Deposition, p. 132 & UD_MIC0000022.

⁵⁰ <https://educationaladvocates.com/the-parents-role-in-the-college-admission-process-2/> viewed on August 8, 2022.

of college-aged children who often have a strong influence on the college decision. Ignoring such influential decision makers further biases the results of the Gaskin-Weir Hypothetical Model.

Consequently, the Gaskin-Weir Hypothetical Model is flawed because it assumes consumers are financially savvy.

V. The Gaskin-Weir Hypothetical Model

Before I address some of the serious flaws in their Methodology, this Section briefly describes the general analysis that Mr. Gaskin and Mr. Weir claim measures how much less UD students would have paid had they known in advance that State orders would have closed the UD campus in March 2020.

Mr. Gaskin and Mr. Weir separately describe analyses of the tuition they believe students would have paid for the portion of the Spring 2020 Semester where i) UD offered virtual classes; and ii) the transition to virtual classes, and the alleged losses for each.

A. The Period Where UD Offered Virtual Classes

Mr. Gaskin utilized a choice-based conjoint (“CBC”) analysis (a form of experimental economics) to estimate the uniform lower price putative class members should have paid for virtual classes and no access to the UD campus or facilities at time and point of acceptance.⁵¹ In doing so, Mr. Gaskin assessed the difference he believes existed at the time and point of acceptance between:

- a) his perception of the specific, classwide market value that all putative class members would have received had they possessed the choice of in-person or virtual classes and full access to Delaware’s campus and facilities and
- b) his perception of the specific, classwide market value that all putative class members would have received had they taken all virtual classes and no access to Delaware’s campus or facilities.⁵²

It is important to note that there are two distinct and separate parts to Mr. Gaskin’s choice-based conjoint analysis: 1) the determination of alleged preferences and 2) the determination of **the one unique, classwide** alleged tuition price.

Each part of his conjoint analysis needs to be separately analyzed. Statements that conflate the parts are invalid. For example, as discussed below in Section VI.E, the determination of the proper survey attributes such as the schools putative class members perceive as comparable to UD, might be irrelevant to the second stage of Mr. Gaskin’s analysis, but vital to the first stage. Consequently, Mr. Gaskin could not respond to a question about the effect of his erroneous determination of the comparable schools across the putative class on his determination of alleged preferences (the first stage of his model) by saying that comparable schools do not affect his price calculation in the second stage of his model.⁵³

⁵¹ Expert Report of Steven P. Gaskin, August 1, 2022 (“Gaskin Report”), paragraph 10-11.

⁵² Id., paragraph 12.

⁵³ Gaskin Deposition, pp. 218-220, 258-259 & 188.

1. Determination of Alleged Preferences

Mr. Gaskin identified putative class member preferences utilizing internet-based surveys.⁵⁴ For the survey, Mr. Gaskin initially proposed to target at least 300 “United States residents aged 16 and over who indicate that they personally applied to, been accepted to, or attended the University of Delaware or one of its competitors for undergraduate education in the past 20 years.”⁵⁵

Mr. Gaskin’s survey reduces complex, dynamic and diverse universities, such as UD, to a drab and limited combination of attributes that he alone has selected without a proper basis. In particular, his survey assumes that all UD undergraduate students select their university based upon only seven distinct and non-interactive attributes: one of the universities (UD or Mr. Gaskin’s alleged competitors), 4-year graduation rate, student-faculty ratio, undergraduate teaching ranking, Ethnic Diversity Index, class/campus format and tuition per semester.⁵⁶ He then somehow determined that each of these attributes could only take on 3 – 5 different specific and hypothetical values.

Mr. Gaskin claims he determined that the aforementioned were the most relevant attributes and attribute values by reviewing generic public data that universities and third parties produced.⁵⁷ He did not consider UD’s proprietary marketing and admissions information that utilizes data analyses to determine and evaluate the most important attributes in greater detail, which could have been obtained in discovery. For example, Mr. Gaskin excluded attributes, such as types and availability of majors, reputation with anticipated employers, access to and quality of faculty in particular majors, extracurricular activities (sports, Greek life, etc.), class timing, geographic proximity to home, proximity to family/friends and family history to name a few.⁵⁸

Even if he properly determined the relevant attributes, Mr. Gaskin did not discuss how he determined the specific and hypothetical values for these attributes that he included in his analysis. Mr. Orme, the lead authority upon which the Gaskin-Weir Hypothetical Model is based, wrote how results could be biased if incorrect values were included in a survey.⁵⁹

To “determine” the preferences that he believes putative class members would have regarding these attributes, Mr. Gaskin “constructed” hypothetical combinations by randomly selecting one of the 3 – 5 values for each of his seven attributes. For example, one combination that could be included in his survey would possess the Stony Brook University-SUNY name, a hypothetical 57% graduation rate, a hypothetical 19:1 student-faculty ratio, hypothetically not be in the top 10 for undergraduate teaching, a hypothetical Ethnic Diversity Index of .4 out of 1, classes being held virtually with no access to campus and facilities and a hypothetical tuition of \$17,250.

Mr. Gaskin did not demonstrate that any of these values are real, that any of the hypothetical combinations he constructed will match those of any existing university, or even describe realistic

⁵⁴ Gaskin Report, paragraph 34-35.

⁵⁵ Id., paragraph 35 & Declaration of Steven P. Gaskin in Support of Class Certification (“Gaskin Declaration”), dated July 1, 2022, paragraph 40. Per footnote 22, Mr. Gaskin’s alleged competitors to UD include: North Carolina State University, Stony Brook University-SUNY, University of Maryland-College Park and University of Pittsburgh.

⁵⁶ Id., paragraph 25-29.

⁵⁷ Id., paragraph 24-25.

⁵⁸ Rodney Affidavit, paragraphs 12-15.

⁵⁹ Orme & Chrzan, p. 97 & 241.

choices that he claims are necessary to conduct a conjoint analysis.⁶⁰ The Gaskin-Weir Hypothetical Model creates choice options that do not exist in the real world and provides no basis to establish that any combination of attributes of any of the hypothetical universities actually exists at any university such that survey respondents could have ever been presented with such a “choice” in the real world. For example, the above combination has the lowest possible values for graduation rates, student-faculty ratios, teaching ranking, and Ethnic Diversity Index (according to Mr. Gaskin), but the highest possible tuition (according to Mr. Gaskin). Mr. Gaskin provided no basis to establish that such combination of attributes exists at any university or that survey respondents could ever be presented with such a “choice” in the real world.

Mr. Gaskin asked his survey respondents to select one of three hypothetical combinations he constructed.⁶¹ He then performed mathematical calculations on the multiple survey respondents’ responses to several such selections to supposedly determine each respondent’s preferences for the hypothetical attributes he constructed. His data show that **each respondent possesses different individualized preferences**.⁶²

Furthermore, Mr. Gaskin improperly constrained the decision making of his survey participants, by forcing them to make decisions in an economic environment significantly different than what putative class members experienced during the Spring 2020 Semester at UD. In particular, as discussed above, UD (and every other institution of higher education in the U.S.) transitioned to virtual education during the Spring 2020 Semester because of COVID-19.⁶³ However, Mr. Gaskin told all of his survey respondents to assume that they are making these choices as if they were enrolling as an undergraduate prior to the COVID-19 pandemic and that the pandemic should not be a factor in their decisions.⁶⁴ Consequently, his analysis by definition does not “simulate an [accurate] undergraduate education choice experience” relevant to the decisions that the putative class members faced during the Spring 2020 Semester.⁶⁵ As a result, the Gaskin-Weir Hypothetical Model does not “simulate an [accurate] undergraduate education choice experience” relevant to the decisions that the putative class members faced during the Spring 2020 semester because he told all of his survey respondents to assume that they are making choices as if they were enrolling as an undergraduate prior to the COVID-19 pandemic and that the pandemic (which forced all universities across the country to close and/or pivot to online learning) should not be a factor in their decisions.

2. The Determination of The One Unique, Campus-Wide Alleged Price

After conducting the survey, Mr. Gaskin utilized a software package called Sawtooth that he utilized to determine **the alleged one unique, campus-wide** alleged tuition UD would charge in each scenario.

⁶⁰ Gaskin Report, paragraph 18.

⁶¹ Id., paragraph 16 & Figure 1 on p. 7.

⁶² Id., paragraph 57.

⁶³ UD_0037739-UD_0037740.

⁶⁴ Gaskin Report, Figure 1 on p. 7.

⁶⁵ Id., paragraph 25.

To determine this one unique, campus-wide alleged price, Mr. Gaskin **aggregated** the individualized preferences he estimated in the prior subsection. In particular, he estimated each individual respondent's subjective preferences between two hypothetical combinations:

Combination 1 contains the name UD and has the Class and Campus Format equaling "classes are held online, and students have no access to the campus, its facilities, or the campus experience"⁶⁶

Combination 2 contains the name UD and has the Class and Campus Format equaling "classes are offered in person and students have access to the campus, its facilities, and the campus experience."⁶⁷

Mr. Gaskin's software package allegedly would determine whether each respondent would select Combination 1 or Combination 2 at different tuition levels. Because of individualized preferences, Mr. Gaskin's data show that each individual respondent likely would make a different subjective selection when faced with such a choice.

Layering speculation upon speculation, Mr. Gaskin then proposes to **aggregate** his respondents' subjective selections and determine **one unique, campus-wide** price of tuition so that 50% of the respondents would choose Combination 1 and 50% of the respondents would choose Combination 2.⁶⁸ The difference between the tuitions for Combination 1 and Combination 2 would be used to calculate a % Overpayment Factor, which allegedly equals the semester-long overcharge because of the State-ordered campus closure.⁶⁹

Mr. Weir utilized this "overcharge" percentage Mr. Gaskin calculated as the sole basis to estimate the alleged tuition damages (i.e., his alleged "Overpayment Damages" calculation). In particular, he would multiply the % Overpayment Factor by "the days that students were taking online classes and not having access to the University campus divided by the total days that students would have otherwise had in-person classes and access to the University campus"⁷⁰ (which he calls the Prorate %) and "the amount the [putative] class paid in instructional fees and non-residential fees."⁷¹

B. The Period of Transition to Virtual Classes

In his calculation of damages for this "transition" period (i.e., his alleged "Return of Tuition for Missed Days" calculation), Mr. Weir completely ignores Mr. Gaskin's conjoint analysis. Instead, to estimate the alleged tuition damages in this scenario, Mr. Weir multiplies "the days that students did not have classes at all, divided by the total days that students would have otherwise had in-person classes and access to the University campus."⁷² By "the amount the [putative] class paid in instructional fees and non-residential fees."⁷³ By doing so, Mr. Weir assumes without any analysis that putative class members received zero value during this transition period.

⁶⁶ Id., paragraphs 15 and 57, p. 26.

⁶⁷ Ibid.

⁶⁸ Id., paragraph 57.

⁶⁹ Ibid.

⁷⁰ Declaration of Colin B. Weir, August 1, 2022 ("Weir Report"), paragraph 51.

⁷¹ Ibid.

⁷² Id., paragraph 53.

⁷³ Ibid.

This Expert Report goes on to show that the Gaskin-Weir Hypothetical Model is, in design and in proposed application, fatally flawed and contrived to reach speculative results that do not match reality.

VI. The Gaskin-Weir Hypothetical Model Violates the Directives of the Authoritative Sources Upon Which It Is Based Along Multiple Dimensions

Mr. Gaskin claimed to have relied on the text *Getting Started with Conjoint Analysis Strategies for Product Design and Pricing Research* written by Bryan K. Orme of Sawtooth as well as *Becoming an Expert in Conjoint Analysis: Choice Modeling for Pros* written by Mr. Orme and Keith Chrzan as the theoretical bases behind the Gaskin-Weir Hypothetical Model.⁷⁴ Paul E. Green, a former Professor of Marketing at the Wharton School of Economics at the University of Pennsylvania, stated that the *Getting Started* book is “almost encyclopedic in its coverage of topics ranging from study design to the presentation of results to clients.”⁷⁵

In his deposition, Mr. Gaskin conceded that these texts do not support the use of the Gaskin-Weir Hypothetical Model in class actions lawsuits, but attempted to give the impression that these texts did not address the same issues that the Gaskin-Weir Hypothetical Model does.⁷⁶ However, contrary to Mr. Gaskin’s claim, these allegedly authoritative texts do address these issues and demonstrate that the Gaskin-Weir Hypothetical Model is inaccurate and unreliable. In particular, these texts state that the Gaskin-Weir Hypothetical Model would not properly assess any alleged damages. The subsections below identify some ways in which the Gaskin-Weir Hypothetical Model violates the precepts of these texts.

Mr. Gaskin did not cite to any academic authorities or publications that support the Gaskin-Weir Hypothetical Model.

A. Mr. Gaskin’s Authoritative Texts State that the Gaskin-Weir Hypothetical Model Cannot Properly Assess Any Alleged Damages

The Gaskin-Weir Hypothetical Model simulates survey respondents’ behavior when faced with a choice between attending UD where “classes are held online, and students have no access to the campus, its facilities, or the campus experience,” and UD where “classes are offered in person and students have access to the campus, its facilities, and the campus experience.” With that simulation, Mr. Gaskin calculated what he believes to be the Willingness to Pay (“WTP”) for in person classes and campus access. This WTP forms the basis for his overcharge percentage.

⁷⁴ Gaskin Report, footnotes 42 & 44.

⁷⁵ Orme, Bryan K. *Getting Started with Conjoint Analysis: Strategies for Product Design and Pricing Research*, Fourth Edition, 2020, (“Orme”), back cover.

⁷⁶ Gaskin Deposition, pp. 125-126, 127-130.

Mr. Orme calls such a simulation where one compares a hypothetical market with two products, one with the feature of interest and one without, the two product alternatives simulation.⁷⁷ He described such a simulation to determine WTP as a shortcut to the actual algebraic method.

Citing to a study that had not even been published before the *Becoming an Expert in Conjoint Analysis: Choice Modeling for Pros* text was written in October 2021, less than a year ago, Mr. Orme concluded that two product alternatives simulations overstate WTPs. In particular, he wrote that

In a vacuum, WTP may measure what economists call the “maximum price,” but in a competitive environment what customers are willing to pay will likely be less. Using a more complete competitive context than just two product alternatives, we find that market simulations allow us to estimate WTP for a feature more realistically (Orme 2001); on average 14% to 20% lower WTP than the two-product or algebraic approaches (respectively) according to a meta study of 9 CBC datasets.⁷⁸

This newly published critique demonstrates that the Gaskin-Weir Hypothetical Model cannot properly assess the alleged damages in this matter.

Instead of applying the two product alternatives short cut simulation, Mr. Orme stated that the following simulation would more accurately determine WTP.

For the competitive simulation approach, we simulate two markets. One contains competitive products (often including the None) and the client’s product, which lacks the feature of interest. The other contains the same set of competing products plus the client’s product, but *with* the feature of interest. We raise the price of the client’s product in the second market until it has the same share as in the first market and the difference in price for the product in the two markets is an estimate of WTP. A key advantage of this approach is that instead of averaging WTP across the population of respondents, many of whom are unlikely to choose the firm’s offering, respondents on the cusp of choosing the firm’s product more heavily influence the resulting WTP.⁷⁹

This competitive simulation approach, which Mr. Orme stated was proper and Mr. Gaskin did not perform, is consistent with microeconomic theory. Microeconomic theory states that entities should price their products and services based upon the desires of the marginal consumer.⁸⁰ The marginal consumer is the consumer that is “on the cusp of choosing the firm’s product.” Instead of utilizing the economically proper marginal consumer analysis, the Gaskin-Weir Hypothetical Model is based on an average consumer analysis.

⁷⁷ Orme & Chrzan, p. 202-203

⁷⁸ Id., p. 203.

⁷⁹ Ibid.

⁸⁰ Varian, Hal R., *Microeconomic Analysis*, Second Edition (“Microeconomic Analysis”), pp. 7-8.

Additionally, Mr. Orme wrote that “[s]ome conjoint methods (ACA and potentially any partial-profile method) tend to understate people’s price sensitivity. This can result in inflated willingness to pay values.”⁸¹

As the Gaskin-Weir Hypothetical Model employs a simulation methodology that overstates the WTP for campus-based classes and campus access, their overcharge percentage that forms the basis of their damages calculation is overstated and inaccurate. Consequently, their calculations could not be used to assess alleged damages.

B. Mr. Gaskin’s Misapplication of Decision Theory Further Biases the Conclusions of the Gaskin-Weir Hypothetical Model

As discussed above, Mr. Gaskin testified that decision theory is the basis underlying conjoint analyses.⁸²

Decision theory studies how people, businesses and institutions evaluate things like choosing items to purchase and price setting decisions. Mr. Orme stated that “[h]uman choice behavior is certainly complex.”⁸³ Such complexity causes different people to utilize different rubrics to make their decisions. I discuss some of these rubrics below and how Mr. Gaskin misapplies decision theory for the putative class.

1. Additive Compensatory Decision Rubric

One such decision making rubric that forms the basis of most conjoint analyses including the Gaskin-Weir Hypothetical Model is called the additive compensatory decision rule.⁸⁴ This rubric assumes that a given product can be described by its various attributes and people obtain different utilities for each attribute. If the utilities of each attribute are additive, a consumer could obtain the same overall utility from the product by trading off attribute levels. Receiving lower utility from a shortfall in one attribute could be made up for or compensated by surplus utility in another attribute.

The Gaskin-Weir Hypothetical Model applies such a decision rubric; it claims that the allegedly lower value that Mr. Gaskin’s survey respondents receive from having virtual classes and no campus access could be compensated for by a lower price.

Mr. Gaskin just assumed without any analysis that both all of his survey respondents and all of the putative class members utilize the additive compensatory decision rule. However, as discussed below, people utilize other decision making rubrics. Mr. Orme stated that the Gaskin-Weir Hypothetical Model would not accurately model respondent preferences and alleged damages if their survey respondents utilized these other decision making rubrics.⁸⁵

Mr. Orme noted that:

⁸¹ Orme, p. 86. ACA represents Adaptive Conjoint Analysis.

⁸² Gaskin Deposition, pp. 101-103.

⁸³ Orme & Chrzan, p. 140.

⁸⁴ Id., pp. 8-9.

⁸⁵ Id., pp. 201-202.

Not all proposed choice models are compensatory, however.⁸⁶

Common assumptions [underlying conjoint models] about respondent behavior ... included (a) respondents used an additive compensatory decision rule consistent with MNL, and (b) no significant attribute interactions. However, at least one of those assumptions usually is violated with real-world respondents.⁸⁷

If respondents answer CBC questions in an additive and compensatory manner following the assumptions of the logic choice model, utility balance can increase the D-efficiency of CBC questionnaires- often quite impressively. But, it turns out that most respondents do not answer CBC questionnaires using the additive compensatory rule.⁸⁸

2. Lexicographic Decision Rubric

Mr. Orme actually found that “70% of respondents in some choice studies seem to be making lexicographic choices.”⁸⁹ Under a lexicographic decision rubric, respondents identify the most important attribute to them and select the item(s) with the highest value to them of that attribute. If more than one item possesses that highest value, respondents eliminate all items that do not possess the highest value for the most important attribute from the choice set. They then identify the second most important attribute to them and select the item(s) with the highest value to them of that attribute from the remaining choice set. Respondents continue that process until one item is identified.

Mr. Orme also concluded that standard conjoint analyses like the Gaskin-Weir Hypothetical Model do not properly calculate values in markets where people base their product selections on lexicographic preferences.⁹⁰

3. Satisficing Decision Rubric

Another decision making rubric is called satisficing. With such a rubric, decision makers determine:

whether a given alternative meets the satisfaction threshold or not – a simple thumbs up or thumbs down. The decision-maker then chooses the first alternative she finds that satisfies her needs and then she ends the search process.... Note that satisficing is “path dependent,” in that different decision-makers with the same

⁸⁶ Id., p. 4.

⁸⁷ Id., p. 27. MNL (Multinomial Logit) Choice Model is a regression used to predict categorical placement in or the probability of a category membership on a dependent variable based on multiple independent variables per http://bayes.acs.unt.edu:8083/BayesContent/class/Jon/Benchmarks/MLR_JDS_Aug2011.pdf, viewed on August 22, 2022.

⁸⁸ Id., p. 56. CBC is Choice Based Conjoint, as Mr. Gaskin used. D-efficiency is the relative number of runs (expressed as a percent) required by a hypothetical orthogonal design to achieve the same determinant value, per https://ncss-wpengine.netdna-ssl.com/wp-content/themes/ncss/pdf/Procedures/NCSS/D-Optimal_Designs.pdf, viewed on August 22, 2022.

⁸⁹ Id., p. 5.

⁹⁰ Ibid.

selection criteria can end up making different choices because they may come across different satisfactory alternatives first.⁹¹

Mr. Orme also concluded that conjoint analyses, like the Gaskin-Weir Hypothetical Model, do not properly calculate values in markets where people base their product selections on satisficing.⁹²

4. Other Decision Rubrics

Mr. Orme identified other decision making rubrics including Elimination-by-Aspects, Conjunctive, Disjunctive, Random Regret Minimization, Relative Advantage Maximization and Must-Have or Unacceptable Levels.⁹³ Mr. Orme concluded that most respondents to CBC questionnaires like the Gaskin survey “key on a few must-have or must-avoid aspects to narrow down their choices.”⁹⁴

5. Mr. Gaskin’s Use of the Additive Compensatory Decision Rubric Does Not Apply to the Putative Class

It is very likely that putative class members did not apply the additive compensatory decision rule needed for the Gaskin-Weir Hypothetical Model to accurately assess alleged damages, all else equal, for several reasons.

First, as discussed above, Mr. Orme found that most survey respondents utilize a lexicographic decision making rubric.

Second, Mr. Gaskin assumed, without any analysis, that universities can be described by seven attributes.⁹⁵ Mr. Orme concluded that:

Respondents often don’t use the additive compensatory rule when answering CBC tasks regarding high-involvement categories – especially when they involve four or more [attributes].⁹⁶

Third, as discussed below in Section VI.E.1.b, the Named Plaintiffs identified 1 – 2 attributes that caused them to choose to attend UD. They did not imply any tradeoffs that would compensate them from not obtaining these attributes. For example, Mr. Ninivaggi testified that he did not want to go to an in-state school in New York and UD wasn’t too far from Long Island.⁹⁷ He did not imply that he could be compensated for attending a school in a different geography.

⁹¹ Ibid.

⁹² Ibid.

⁹³ Id., pp. 6–8, 27.

⁹⁴ Id., p. 56.

⁹⁵ Section VI.E.1.b below shows that this assumption understates the number of relevant attributes considered when students make their college selection.

⁹⁶ Orme & Chrzan, p. 57.

⁹⁷ Ninivaggi Deposition, pp. 30-31.

C. Mr. Gaskin Did Not Demonstrate that the Model He Employed Was Appropriate

To calculate his alleged overcharge percentage, Mr. Gaskin made several unsupported assumptions that he did not demonstrate were valid. For example, in addition to not identifying the exact thought process behind the attributes he included in his survey and their levels, Mr. Gaskin utilized a straight forward linear regression model with no interactive terms.

There are many alternatives to such a model. For example, Mr. Orme wrote:

In the course of building models we invariable make decisions (or assumptions); e.g., whether to use a linear function, a non-linear function or dummy variables to represent a quantitative variable, whether to include one set of interactions or another or none at all, and so on.⁹⁸

There often is a tradeoff between statistical efficiency and task realism in experimental design for discrete choice experiments.⁹⁹

[O]ptimization results hinge on the quality of the inputs: garbage in, garbage out. Seemingly mundane issues such as interviewing the right respondents, motivating them to give realistic answers, specifying the right levels for attributes, and data cleaning can have a huge impact on optimization results.¹⁰⁰

Mr. Gaskin did not demonstrate how he made the aforementioned required decisions to select the model underlying the Gaskin-Weir Hypothetical Model. He did not explain why he made the tradeoffs he did. Without such explanations, Mr. Gaskin cannot claim that his model is sufficiently accurate to be used to calculate alleged damages in this matter.

For example, when asked why he did not include any interactive terms in his model, Mr. Gaskin alleged that the 10 respondents in his pretest qualitatively did not imply that interactive terms would be needed.¹⁰¹ However, he could not identify what questions the respondents were asked or what answers were given that allowed him to generate such a conclusion.¹⁰² Without such identification, I am unable to determine if the bases underlying his model are accurate.

Even if such answers were given, receiving such qualitative information does not relieve one from performing quantitative tests to ensure the accuracy of that information. For example, as discussed above, even though one survey found that more than half of respondents qualitatively believed they knew “a lot or a good amount” about college costs, they significantly quantitatively misestimated those costs.¹⁰³ Statistical models can demonstrate the occurrence of certain results that were unintentionally performed by survey respondents. For example, Mr. Orme stated that:

⁹⁸ Orme & Chrzan, p. 75.

⁹⁹ Id., p. 50.

¹⁰⁰ Id., p. 241.

¹⁰¹ Gaskin Deposition, pp. 224-225.

¹⁰² Id., pp. 176-181.

¹⁰³ “Information Constraints and Financial Aid Policy” Judith Scott-Clayton, NBER Working Paper 17811, February 2012, p. 4.

[I]t is helpful to select experimental designs that permit the precise estimation of all first-order interaction effects and then test whether the inclusion of the most promising ones can improve the model's predictions.¹⁰⁴

Because of the depth and breadth of the statistical decisions that need to be made in a conjoint analysis that could vary from industry to industry and situation to situation, Mr. Orme found that:

Prior to trusting the results of an optimization algorithm, it is best to have gained experience through multiple applications of conjoint analysis to the particular market of interest so that you are confident that the predictions from the choice simulator indeed track reasonably well with actual market choices.¹⁰⁵

Mr. Gaskin testified that he did not have such experience in developing conjoint models for the setting of university tuition. In particular, he stated that he was not an expert on student fees and tuition and that he had not previously constructed conjoint models to analyze pricing of student tuition.¹⁰⁶

Mr. Gaskin's approach is contrary to the author of what he considers to be authoritative texts, and consequently, Mr. Gaskin does not have the experience to construct a trustworthy conjoint model to analyze tuition and alleged damages at UD.

Even if he were able to construct a proper conjoint model, the Gaskin-Weir Hypothetical Model incorrectly assumes that companies and universities blindly apply the results implied by conjoint analyses and do not utilize other tools in arriving at their pricing decisions. Mr. Gaskin and Mr. Weir have not provided any evidence that any university, let alone UD, utilizes conjoint analysis to set prices without considering other factors. Even if conjoint analyses are one way of determining prices, they would not accurately predict prices if UD utilized another method to determine prices. Conjoint analyses assume that the supplier does not have any constraints on their price setting ability. However, UD does, as discussed below in Section VI.G.

Furthermore, as the Gaskin-Weir Hypothetical Model is based on a 50 – 50 market share, Mr. Gaskin implicitly opined that his conjoint analysis could be utilized to calculate market shares. However, Mr. Orme wrote that “**conjoint models do not predict market share**.... Believing that we have an accurate predictor of market share can lead us to misuse a model.... We must avoid thinking that adjusted conjoint models can consistently and accurately predict volumetric absolutes such as market share.”¹⁰⁷ Because conjoint analyses cannot calculate market shares and market shares are integral to the price and price difference that Mr. Gaskin proposes to calculate, the Gaskin-Weir Hypothetical Model is fatally flawed.

D. Mr. Gaskin Did Not Determine that the Data Included in his Conjoint Analysis Were Appropriate

Mr. Gaskin asked each of his survey participants to complete 12 different university choice selections. He included all of these selections in his model other than a small number of responses

¹⁰⁴ Orme & Chrzan, p. 193.

¹⁰⁵ Id., p. 241.

¹⁰⁶ Gaskin Deposition, pp. 42-44 & 68-69.

¹⁰⁷ Orme, p. 26 – 27. (**emphasis** added).

that were eliminated through a data cleaning process and model validation process (the latter of which discussed in Section V.A.2).

However, Mr. Gaskin did not demonstrate that it is appropriate to include all such selections in determining his overcharge percentage. For example, Mr. Orme stated that

[S]ome researchers think that learning effects bias respondents and that the first few conjoint questions might be the most valid of all, the last ones a modeler should discard.¹⁰⁸

Mr. Gaskin did not demonstrate that an accurate overcharge percentage could be calculated by his inclusion of university choice selections that the author of what he claims to be authoritative texts states should be discarded.

Additionally, it is likely that Mr. Gaskin's survey understated the percentage of respondents that would not purchase the university combination in the choice selection. As discussed above, Mr. Gaskin's survey asked the enrollment question (i.e., would you enroll) **after** the university choice selection was made (i.e., selecting hypothetical university at hypothetical price). Mr. Orme found that survey participants chose not to make the relevant purchase "at a more realistic (higher) rate" if the enrollment question was asked **before** the university choice selection was made.¹⁰⁹

Furthermore, after each university choice selection made, Mr. Gaskin asked survey participants "[g]iven your knowledge of universities, would you or would you not **actually be willing to enroll at the university that you chose above with the tuition indicated?**"¹¹⁰ Mr. Gaskin apparently included university choice selections that survey participants made, but were not willing to actually enroll at with the tuition indicated. (e.g., respondents who answered no to the above question) Therefore, his conclusions about what survey participants would purchase at what prices are based on at least some university choice selections where even he admits that a purchase would not occur. Mr. Gaskin did not explain how incidents where survey participants opted to not purchase a university combination can be used to determine the prices the participants would be willing to pay to purchase various combinations.

E. Mr. Gaskin Did Not Perform a Proper Survey to Elicit Respondent Preferences Regarding UD's Tuition

As discussed in the subpoints below, Mr. Orme states that to properly run a conjoint analysis one should begin by determining respondents' preferences by asking them to decide between realistic products on the market and not putting unrealistic constraints on those decisions.

Mr. Gaskin did not perform either of these required steps accurately.

¹⁰⁸ Orme & Chrzan, p. 81.

¹⁰⁹ Id., p. 72.

¹¹⁰ Gaskin Report, p. E-18.

1. The Gaskin-Weir Hypothetical Model Did Not Ask Respondents to Decide Between Realistic Products

The Gaskin-Weir Hypothetical Model is fundamentally flawed as it ignores the complex, individualized preferences that UD students utilize to select their university.

It is important that a conjoint survey emulate as close as possible the real-world environment in which the purchasers make their purchasing decision, and present actual products as choices, rather than a list of characteristics. As noted by Sawtooth, conjoint analyses do not provide accurate results if the surveyor does not properly identify the entire set of competitive choices and product characteristics consumers consider when making purchase decisions.¹¹¹ Conjoint experts agree:

The profiles presented [in conjoint analysis] should be believable (and should resemble existing products as much as possible).¹¹²

It is particularly important that subjects have familiarity with the products and features they are being asked to evaluate that is comparable to their real market experiences.¹¹³

One of the creators of conjoint analyses described the importance of including actual products available in the marketplace plus the item in question in a conjoint analysis.¹¹⁴

The Gaskin-Weir Hypothetical Model, however, did not have survey respondents evaluate university experiences that are “comparable to [UD students’] real market experiences.” As discussed below, the survey misstates what other universities putative class members might have selected and ignores many relevant features that students consider when selecting a university. In fact, Mr. Gaskin’s conjoint survey did not present respondents with actual university choices at all. Instead, he instructed respondents to ignore what they know about the universities included in the survey and solely select hypothetical combinations that contain university characteristics Mr. Gaskin thought might be important. Mr. Gaskin provides no evidence that these hypothetical combinations are consistent with any actual university. Also, he did not show that his respondents would ever face such a “purchase” decision in the real world or would believe that characteristics Mr. Gaskin thought might be important were actually important. For example, he did not show that all UD students would make a college decision based upon a Student-Faculty Ratio. Consequently, Mr. Gaskin has failed to demonstrate that the attributes listed in his proposed conjoint analysis “resemble[d] existing products as much as possible” or were relevant to all putative class members.

Importantly, Mr. Gaskin did not abide by his own recommendation that “it is almost always advisable to conduct up-front qualitative research with customers to make sure that the attributes

¹¹¹ Proceedings of Sawtooth Software Conference, October 2013, (“Sawtooth Proceedings”) (Download from <https://www.sawtoothsoftware.com/support/technical-papers/100-support/proceedings/1426-proceedings2013> viewed on August 12, 2021), p. 342.

¹¹² Rao, V. R. (2014), *Applied Conjoint Analysis*. Heidelberg: Springer (“Rao”), p. 45.

¹¹³ Ben-Akiva, M., D. McFadden, and K. Train (2019), “Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis,” *Foundations and Trends in Econometrics*, 10(1–2), 1–144 at p. 25.

¹¹⁴ Rao, p. 99.

mirror their actual decision criteria, are reasonably complete with respect to the most important attributes, and are expressed in terms that they can understand.”¹¹⁵

Quantifying the preferences of survey respondents is purpose agnostic. It does not matter whether one is constructing an economic model of preferences for an academic paper, to develop a new product, or for class action litigation. The same economic and statistical principles apply.

Mr. Gaskin and Mr. Weir tend to call attributes other than the one they are trying to measure distractor variables. While such attributes might be irrelevant in the second stage of their conjoint model when they determine prices, they are vital in the first stage of their conjoint model when they try to determine respondent preferences. As discussed above, irrational preferences could result from providing respondents with an incomplete and inaccurate characteristics choice set. It is important that the surveyor identify the omitted characteristics and demonstrates that their Exclusion would not result in inaccurate, biased preferences. Mr. Gaskin and Mr. Weir potentially believe that the other variables are distractors because of the two product alternatives short cut simulation described above in Section VI.A. However, Mr. Orme in his allegedly authoritative text, did not describe the other variables as distractors that could be ignored and not properly quantified.

a. Mr. Gaskin’s Survey Misstates The Choices Putative Class Members Faced

The Gaskin-Weir Hypothetical Model is flawed and unreliable because it does not “simulate an [accurate] undergraduate education choice experience” relevant to the decisions that the putative class members faced during the Spring 2020 semester because Mr. Gaskin told all of his survey respondents to assume that they are making choices as if they were enrolling at universities as an undergraduate and that the COVID-19 pandemic should not be a factor in their decisions. On the other hand, actual, undisputed, real-world facts demonstrate that the COVID-19 pandemic forced all universities across the country to close and/or pivot to online learning, caused UD to perform its allegedly improper activity and triggered student / putative class member reactions.

As a result, Mr. Gaskin did not properly identify the comparator universities for the Spring 2020 Semester. For example, almost all putative class members were also enrolled at UD during the Fall 2019 Semester. In addition, putative class members attended more than 4 weeks of in-person and virtual classes during the Spring 2020 Semester prior to the state-ordered campus closure.¹¹⁶ Consequently, instead of asking the respondents what hypothetical combination of university characteristics they would generally select, the question, at a minimum, should be qualified by the statement **given you were enrolled at UD during the Fall 2019 Semester**. Hypothetical respondents likely would have paid higher prices to remain at a combination that possessed the UD name and experience even if they perceived that its education diminished in some way. Economists have found that “price responsiveness for first time students is more price sensitive compared to students that have already enrolled.”¹¹⁷ Ignoring that putative class members were

¹¹⁵ Gaskin, p. 25.

¹¹⁶ Some students voluntarily selected to take all their classes virtually prior to the closure. Some students likely did not attend their in-person classes.

¹¹⁷ Arnott, Alaine K. “A Descriptive Analysis of Fees at Four-Year Public Universities: Differentiating Between Tuition and Fees” Doctoral Dissertation, University of Missouri, 2012, (“Arnott”), p. 177.

already enrolled at UD overlooks the fact that the university selection choice underlying the Gaskin-Weir Hypothetical Model is not costless. Putative class members would bear monetary & non-monetary transfer costs if they selected another university (e.g., application costs, the cost of developing new friends) or took a Gap Semester (e.g., delayed post-graduation salaries). Even if one ignored the highly individualized nature of such costs, which would impede the formulaic determination of damages, several economic models demonstrate how such “transaction costs” inhibit prices from fully reacting to consumer beliefs.¹¹⁸ By not including such a real-world situation, the Gaskin-Weir Hypothetical Model would overstate alleged damages because transaction costs would at a minimum partially offset any alleged price reduction their incomplete model would generate.

Furthermore, Mr. Gaskin told survey participants to assume that they were enrolling as first time students, and he also gave no indication of how long students did not have the choice between their Class and Campus Format. People could improperly perceive that this Class and Campus Format (e.g., classes held online; no access to campus or facilities) would remain in effect for their entire undergraduate experience. Therefore, this would not even come close to reflecting what the putative class members faced and would bias his results. If Mr. Gaskin wanted to analyze first time student choices, Mr. Gaskin would have had to study all semesters in which students were enrolled at UD, not just the one semester he did.

Additionally, as mentioned above, Mr. Gaskin instructed his respondents to assume “[y]ou are making your university choices prior to the COVID-19 pandemic, so it should not be a factor in your decision.”¹¹⁹ However, this misstates the choices the hypothetical respondents would have, as all of the universities whose names were in his choice set closed their campuses during the Spring 2020 Semester. As a result, putative class members did not have a choice between 1) a combination with the UD name and a virtual education with no campus access and 2) another combination with a campus-based education and campus access. Because of the false choices that Mr. Gaskin presented to his survey respondents, his model would further misstate the alleged price reduction supposedly due to UD’s transition to online education.

Mr. Gaskin’s proposed survey also does not include all universities that UD students might consider. In one place in his report, Mr. Gaskin claims that UD students would only consider four other universities.¹²⁰ In another place in his report, Mr. Gaskin claims that UD students would only consider 24 other universities.¹²¹ Mr. Gaskin provided no rationale on how he selected these four and twenty-four other competitive universities. Many of the schools are very geographically distant from UD, such as Auburn University (Alabama), University of California – Riverside, University of California – Merced, University of Colorado Boulder, University of Iowa, University of Oregon and University of Utah. Even if such geographically distant schools were competitive with UD, Mr. Gaskin did not explain why he included Auburn and not University of Alabama, University of California – Merced and Riverside and not University of California – Los Angeles or Irvine, University of Colorado Boulder and not Colorado State University, University of Iowa and not Iowa State University, University of Oregon and not Oregon State University, as well as University of Utah and not University of Arizona. With regards to his four school competitive

¹¹⁸ <https://www.sciencedirect.com/science/article/pii/S0268401221001274>, viewed on August 23, 2022.

¹¹⁹ Gaskin Report, footnote 36.

¹²⁰ Id., p. 22.

¹²¹ Id., footnote 22.

list, Mr. Gaskin did not explain why he included North Carolina State University and not University of North Carolina at Chapel Hill (which was on his twenty-four school list), Stony Brook University – SUNY and not University at Buffalo – SUNY (which was on his twenty-four school list), University of Maryland College Park and not University of Virginia (which was on his twenty-four school list), as well as University of Pittsburgh and not Rutgers University (which was on his twenty-four school list).

Many UD students considered attending other universities that are not included in Mr. Gaskin's list of four and twenty-four supposed competitive universities. For example, **Figure 6** shows all the different schools to which the Named Plaintiffs applied. Only Ms. Russo applied to only one of the schools Mr. Gaskin included (University of Maryland). Figure 6 also shows that each Named Plaintiff applied to all different schools, demonstrating the individualized nature that students consider other schools to be competitors to UD. The only consistent school that three of the four Named Plaintiffs applied to was Pennsylvania State University; however, Mr. Gaskin did not include this school in his list of competitors to UD (either the four school list and the twenty-four school list).

Figure 6				
Other Universities to Which Named Plaintiffs Applied				
School	Mickey¹²²	Nigrelli¹²³	Ninivaggi¹²⁴	Russo¹²⁵
James Madison University	X			
Lehigh University	X			
Pennsylvania State University	X		X	X
Providence University	X			
Villanova University	X			
Syracuse University		X		
University of Connecticut		X		
University of New Hampshire		X		
University of Vermont		X		
Drexel University			X	
Florida State University			X	
Ohio State University			X	
St. Joseph's University			X	
University of Tampa			X	
Rutgers University				X
University of Massachusetts – Amherst				X
University of Maryland				X
University of North Carolina – Chapel Hill				X

Notwithstanding the above, economists have found that schools partially insulate themselves from competition by creating market niches and differentiating themselves.¹²⁶ For example, schools like UD differentiate themselves from other schools, like the ones Mr. Gaskin believes are comparable.¹²⁷

In fact, Rodney Morrison, UD's Vice President of Enrollment Management, stated that the biggest competitors to UD include: Pennsylvania State University, Rutgers University, University of Connecticut, Binghamton University, University of Pittsburgh, University of Michigan, Michigan State University, Virginia Polytechnic and State University, Temple University, University of South Carolina, James Madison University, Villanova University and University of Maryland, College Park.¹²⁸ Again, only University of Maryland College Park from this list of competitors was included in Mr. Gaskin's conjoint survey of allegedly competitive choices.

In short, Mr. Gaskin did not demonstrate that any of his proposed comparator schools are actually comparable to UD.

¹²² Mickey Deposition, p. 16.

¹²³ Nigrelli Deposition, p. 16-17.

¹²⁴ Ninivaggi Deposition, p. 28.

¹²⁵ Russo Deposition, p. 29.

¹²⁶ Weisbrod, Burton A., Jeffrey P. Ballou, and Evelyn D. Asch *Mission and Money: Understanding the University* Cambridge University Press, 2008, ("Weisbrod"), p. 46.

¹²⁷ Id., p. 35.

¹²⁸ Rodney Affidavit, paragraph 19.

b. Mr. Gaskin's Survey Does Not Identify All Characteristics Putative Class Members Care About

The text upon which Mr. Gaskin based his conjoint analysis¹²⁹ discusses how conjoint analyses can be unsuccessful and generate incorrect results:

Defining proper attributes and levels is arguably the most fundamental and critical aspect of designing a good conjoint study. It is also often the most time-consuming step in executing a conjoint analysis project.... Attribute definition is central to conjoint study design. Assembling the right combinations of attributes and attribute levels is critical to the success of conjoint studies.¹³⁰

Mr. Gaskin admitted that “missing attributes can be a real problem” to properly determine preferences.¹³¹ He stated, “[l]eaving out an important attribute can render the research’s results invalid and/or misleading.”¹³² Another author noted that the quantitative values of the attribute of interest

could mask the effects of other, omitted attributes.... But if researchers include too many attributes, they may encourage survey respondents to [utilize other decision rubrics]. That, too, may lead the empirically observable quantities to diverge from those of theoretical interest.... The tradeoff between masking and task difficulty presents a key challenge.¹³³

Mr. Gaskin’s proposed survey, which assumes that students care about only seven general characteristics or attributes, ignores many characteristics students care about.

For example,

- Economists have listed other important university characteristics such as:
 - “emphasis on undergraduate teaching relative to graduate training and faculty research, number and types of courses and majors, level of intercollegiate sports, religious or secular orientation;”¹³⁴
 - Football and basketball success;¹³⁵
 - Campus amenities;¹³⁶

¹²⁹ Gaskin Report, footnote 42.

¹³⁰ Orme, pp. 49-50.

¹³¹ Gaskin, p. 24.

¹³² Id., p. 25.

¹³³ Bansak, Kirk et al. “Beyond the breaking point? Survey satisficing in conjoint experiments.” *Political Science Research and Methods*. May 2019, pp. 2–3.

¹³⁴ Weisbrod, p. 35.

¹³⁵ Jacob, Brian. Brian McCall & Kevin M. Stange “College as Country Club: Do Colleges Cater to Students’ Preferences for Consumption,” p. 7 and Jones, Willis A. and Michael J. Rudolph “Athletic Subsidies and College Costs: Are Students Paying for Rising Costs in Intercollegiate Athletics Spending?” pp. 7 – 8.

¹³⁶ Newbold, p. 142 and Kendall, Nancy, Denise Goerisch, Esther C. Kim, Franklin Vernon and Matthew Wolfgram “The True Costs of Student Fees.”

- Family history. Some students have strong preferences to attend universities their family members have, while others prefer not to attend their sibling's college.¹³⁷
- Other scholarly case studies have listed other important university characteristics such as:
 - The size of classes,¹³⁸
 - Presence of guidance and counseling offices,¹³⁹
 - A safe and friendly campus environment and supportive staff,¹⁴⁰
 - Past graduate's career outcomes and job opportunities for graduates,¹⁴¹

In addition, the Named Plaintiffs all had varying reasons for choosing UD:

- Ms. Nigrelli testified that she liked that there were a lot of different majors she could choose from because she was unsure of what major she wanted to do.¹⁴² Mr. Gaskin did not include such quantity of majors in his conjoint analysis.
- Mr. Ninivaggi testified that he did not want to go to an in-state school in New York but UD still wasn't too far from Long Island.¹⁴³ Mr. Gaskin did not include such geographic issues in his conjoint analysis.
- Ms. Russo testified she liked the proximity to home (however, not too close); counseling resources they had available; and the overall "student morale." She also said cost was a factor in choosing between UD and University of Maryland.¹⁴⁴ Mr. Gaskin did not include such geographic issues, counseling resources and student morale in his conjoint analysis.

US News, one of the sources Mr. Gaskin allegedly used to determine the relevant attributes, characterizes UD using other attributes such as its long history since being founded in 1743, suburban setting in downtown Newark, 400+ student clubs/organizations, large Greek system, Division I athletics, and proximity to other large cities (Philadelphia and Baltimore).

[A] public institution that was founded in 1743....[I]ts setting is suburban, and the campus size is 1,996 acres....

For students interested in attending the University of Delaware, it pays to live in the state. The University of Delaware admits all Delaware residents whose academic records predict success, and about 65 percent who apply will be accepted. About half (45-55 percent) of all out-of-state applicants are admitted. For all who receive admission, there are more than 400 student clubs and organizations on the school's lush campus in downtown Newark. Nearly 20 percent of students are

¹³⁷ Avery, Christopher and Caroline M. Hoxby "Do and Should Financial Aid Packages Affect Students' Choices?" p. 270.

¹³⁸ Hyun Kyung Chatfield, So Jung Lee & Robert E. Chatfield (2012) The Analysis of Factors Affecting Choice of College: A Case Study of University of Nevada Las Vegas Hotel College Students, *Journal of Hospitality & Tourism Education*, table 1, 24:1, 26-33, DOI: 10.1080/10963758.2012.10696659.

¹³⁹ Agrey, L., & Lampadan, N. (2014). Determinant factors contributing to student choice in selecting a university. *Journal of Education and Human Development*, 3(2), 391-404, p. 399, table 3.

¹⁴⁰ Ibid.

¹⁴¹ <https://www.collegematchpoint.com/college-matchpoint-blog/2018/4/making-the-right-choice-how-students-decide-which-college-to-attend>, viewed on July 25, 2022.

¹⁴² Nigrelli Deposition, pp. 17-18.

¹⁴³ Ninivaggi Deposition, pp. 30-31.

¹⁴⁴ Russo Deposition, pp. 31-32, 34.

involved in the school's large Greek system, which has about 40 fraternities and sororities. The Fightin' Blue Hens sports teams, named after a Delaware Revolutionary War battalion with the same nickname, compete in the NCAA Division I Colonial Athletic Association. The mascot is a costumed bird named YoUDee, and a group of live Blue Hen chickens reside on the school farm. Freshmen must live on campus, unless they commute from a parent's local home. When students want to leave campus, Wilmington is about 12 miles away. Philadelphia is a 45-mile drive and Baltimore is 55 miles away. The University of Delaware ran the nation's first study abroad program in 1923, and, these days, about a third of undergraduates opt to spend time in another country.¹⁴⁵

Mr. Gaskin did not utilize any of these attributes in his conjoint analysis. Mr. Gaskin's analysis ignores these important and relevant attributes.

One of the Orme texts that Mr. Gaskin considers to be an authoritative text on the procedures underlying the Gaskin-Weir Hypothetical Model states that "Conjoint analysis predictions also assume that all relevant attributes that influence share have been measured."¹⁴⁶ As Mr. Gaskin's survey does not include all relevant attributes, his own source states that the predictions resulting from his conjoint analysis, including Mr. Weir's calculation of alleged damages, are unreliable.

The Gaskin-Weir Hypothetical Model is not based on adequate pretesting as, for example, the Orme text states that a person conducting a conjoint analysis should utilize pretests as a screening task to identify the most relevant attributes "especially for high-involvement products and services described by many attributes,"¹⁴⁷ like colleges and universities. Mr. Gaskin did not perform such a required pretest.

c. Mr. Gaskin's Survey Misstates University Characteristics

Mr. Gaskin's proposed survey suffers from focalism bias. Focalism bias, also known as the focusing illusion, is defined, by a Nobel Laureate, as:

When a judgment about an entire object or category is made with attention focused on a subset of that category, a focusing illusion is likely to occur, whereby the attended subset is overweighted relative to the unattended subset. In particular, when attention is drawn to the possibility of a change in any significant aspect of life, the perceived effect of this change on well-being is likely to be exaggerated.¹⁴⁸

Additionally, focalism bias can be described as:

Whereby people focus too much on the occurrence in question (termed the focal event) and fail to consider the consequences of other events that are likely to occur.

¹⁴⁵ <https://www.usnews.com/best-colleges/university-of-delaware-1431> viewed on July 18, 2022.

¹⁴⁶ Orme, p. 105. (**emphasis** added)

¹⁴⁷ Id., p. 36.

¹⁴⁸ Schkade DA, Kahneman D. Does Living in California Make People Happy? A Focusing Illusion in Judgments of Life Satisfaction. *Psychological Science*. 1998;9(5):340-346. doi:10.1111/1467-9280.00066.

People think about the focal event in a vacuum without reminding themselves that their lives will not occur in a vacuum but will be filled with many other events.¹⁴⁹

Sawtooth warned about focalism causing biased survey results:

Evaluation tasks intentionally force respondents to attend to attributes that they might otherwise not notice. In doing so, attention can elevate the importance of particular attributes to a level that is greater than would occur in the marketplace.¹⁵⁰

While students likely would be aware of the modality of instruction, the Gaskin-Weir Hypothetical Model focuses survey respondents on other characteristics that could be unrelated to the characteristics upon which putative class members use to select UD.

First, while the Gaskin-Weir Hypothetical Model specifically informs respondents about tuition prices, students are often not focused on prices when they make their college decisions, as discussed above in Section IV.C. Consequently, the Gaskin-Weir Hypothetical Model does not accurately mimic the purchase environment of the putative class members.

Second, the Gaskin-Weir Hypothetical Model is flawed and unreliable because its survey respondents were not representative of putative class members. Mr. Gaskin and Mr. Weir only included potential students in their analysis and did not include the impressions of parents who can significantly influence college decisions.

Third, as discussed above in subsection 1.a, Mr. Gaskin's proposed survey is flawed and unreliable because it wrongly assumes that respondents had a choice between in-person and virtual education during the Spring 2020 Semester, when in fact in the real-world, no such choice existed as all of his comparator schools provided virtual education during that term because of the COVID-19 pandemic.

Fourth, as stated above, one of the creators of conjoint analyses wrote that "[t]he profiles presented [in conjoint analysis] should be believable (and should resemble existing products as much as possible)."¹⁵¹ Mr. Gaskin did not demonstrate that his proposed seven characteristics and their values "resemble existing products." The prior subsection also shows that students care about characteristics other than Mr. Gaskin's seven characteristics.

Fifth, even if students had a choice between in-person and virtual education, which they did not, Mr. Gaskin only informed his potential respondents about the "basic" choice between the two. He did not fully explain the real-world implications of these choices. Student safety would differ between Mr. Gaskin's Actual and But For Worlds. Due to the communal spread of COVID-19, it is well established that the risk of catching COVID-19 increases with the greater interaction that would occur if students had access to campus, its facilities and the campus experience.¹⁵² As a

¹⁴⁹ Wilson, T. D., Wheatley, T., Meyers, J. M., Gilbert, D. T., & Axson, D. (2000). Focalism: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, 78(5), 821–836. <https://doi.org/10.1037/0022-3514.78.5.821>.

¹⁵⁰ Huber, J. (1997) "What We Have Learned from 20 Years of Conjoint Research: When to Use Self-Explicated, Graded Pairs, Full Profiles or Choice Experiments," Sawtooth Software Research Paper Series, p. 2.

¹⁵¹ Rao, p. 45.

¹⁵² <https://www.usnews.com/education/best-colleges/articles/coronavirus-on-campus-how-college-students-can-stay-safe> viewed on October 15, 2021.

result, Mr. Gaskin's But For World during the Spring 2020 Semester would be less safe than his Actual World.

Even if one incorrectly accepts the false equivalency inherent in the Gaskin-Weir Hypothetical Model, the Model is still flawed and divorced from reality because it instructs survey respondents to assume "*you are making your university choices prior to the COVID-19 pandemic, so it should not be a factor in your decisions.*"¹⁵³ He did not propose to more accurately describe his campus-based classes with access to the campus option as:

Classes are offered in person and students have access to campus, its facilities, and the campus experience, **but you will be at an increased risk of catching COVID-19.**

It is well established that the risk of catching COVID-19 increases with the greater interaction that would occur if students had access to campus, its facilities and the campus experience.¹⁵⁴ As a result, many students who may have otherwise preferred in-person classes might have preferred online education for a portion of the Spring 2020 Semester, given the increased risk of contracting COVID-19. While the restrictions on learning and campus access would be noticeable, Mr. Gaskin biases his results by not explaining the COVID-19 rationale behind such restrictions and assuming that safety would be identical in both his Actual and But-For Worlds.

As another example of the way in which the Gaskin-Weir Hypothetical Model is flawed and divorced from reality, Figure 4 above shows a larger percentage of students who graduated from UD in 2020 compared to prior years. As a result, a more accurate description of his online classes with no access to campus option would be:

Classes are held online, and students have no access to campus, its facilities, and the campus experience, **but you would have a greater chance of graduating on time and without having to pay tuition in future semesters.**

As a result, the aforementioned more accurate descriptions likely would generate different results than Mr. Gaskin's simplistic analysis.¹⁵⁵

Fifth, even if Mr. Gaskin properly included the relevant characteristics in his survey, he ignored the individualized way in which students perceive these characteristics. For example, the desirability of online classes could also vary based upon major, year of study and type of classes. For example, students with more hands-on majors such as those with lab classes that do not easily translate online could have different preferences than those primarily or exclusively attending lectures. Additionally, someone who only took one seminar on campus during the Spring 2020 Semester could have different preferences than someone who only took large lecture classes. Online class desirability could also vary by professor or the classroom teacher overseeing a student teacher. Additionally, individualized study of classroom attendance would be required to identify such student characteristics.

¹⁵³ Gaskin Report, Figure 1 on p. 7.

¹⁵⁴ <https://www.usnews.com/education/best-colleges/articles/coronavirus-on-campus-how-college-students-can-stay-safe> viewed on October 15, 2021.

¹⁵⁵ I am only stating that these descriptions are more accurate. I am not saying they are fully accurate.

Mr. Gaskin testified that he does not need to include reasons for an action in a conjoint survey; for example,¹⁵⁶ he apparently believes it doesn't matter whether UD closed its campus because of COVID-19 or because it just felt like it. Such a statement runs counter to standard decision theory. The world is replete with examples where people excuse behavior that might be deemed improper when the person committing that behavior "had a good justification." The reasons why UD performed its actions could and likely would influence survey respondents' reactions to those actions. By not including such reasons in his survey, Mr. Gaskin obtained biased results, which cause an improper calculation of alleged damages in this matter.

2. The Overcharge Percentage for Tuition Implied by the Gaskin-Weir Hypothetical Model Is Biased Because of the Inclusion of Fees

In addition to the tuition UD students paid, they also paid fees such as the Student Comprehensive, Student Wellbeing and Student Center fees.¹⁵⁷

Mr. Gaskin testified that his analysis would only calculate the alleged overcharge percentage relating to tuition.¹⁵⁸ He stated that analyzing fees were out of scope of his assignment.¹⁵⁹

While Mr. Gaskin requested that his survey participants ignore fees when answering survey questions, he did not state what fees were relevant.¹⁶⁰ He did not specify the Student Comprehensive, Student Wellness and Student Center fees that UD actually charged. He cannot claim that his survey participants knew which fees schools charged as a study done by Elaine K. Arnott "identified more than 530 unique mandatory fees."¹⁶¹ For example, University of Pittsburgh, one of Mr. Gaskin's supposed competitor schools, had Security, Safety and Transportation, and Computing and Network Services Fees, which UD did not charge.¹⁶² Given that tuition means different things at different schools including Mr. Gaskin's competitor schools, his instructions about ignoring fees is ambiguous.

Irrespective of the ambiguity survey participants faced regarding what fees were relevant, it is incontrovertible that some of the fees UD charged relate to campus access and the campus experience. For example, the Student Comprehensive fee supports the fitness center. Consequently, UD students' lack of access to campus, its facilities (i.e., the fitness center) and the campus experience at least partially relate to the fees paid.

As a result, the overcharge percentage that Mr. Gaskin allegedly measured in his conjoint analysis includes both a tuition overcharge and a fee overcharge element and does not measure the tuition overcharge it claims to have. If survey respondents value the campus access, its facilities and campus experience associated with the fees UD charged more than the aspects associated with the tuition charged, Mr. Gaskin's model would overstate the relevant overcharge percentage.

¹⁵⁶ Gaskin Deposition, pp. 126-130 & 138-139.

¹⁵⁷ UD_0188074.

¹⁵⁸ Gaskin Deposition, pp. 66-68.

¹⁵⁹ Id., pp. 65-67.

¹⁶⁰ Gaskin Report, p. 26.

¹⁶¹ Arnott p. 95.

¹⁶² https://www.ir.pitt.edu/sites/default/files/assets/20192020_pgh.pdf, viewed on August 22, 2022.

Because Mr. Gaskin and Mr. Weir did not measure the fee overcharge element, they cannot claim that the overcharge percentage implied by Mr. Gaskin's conjoint analysis is accurate.

Furthermore, any alleged diminishment in campus use also would be highly individualized. Because students utilize the campus in different ways, any losses they might have suffered because of the State ordered closure would also be different.

Similarly, even those students who did utilize campus amenities did so to varying degrees. Using the student center example, some students may eat at its restaurants daily. Some students may attend weekly events; others might have different social outlets, including going to their primary residence on weekends. Freshman might utilize the student union in different ways than upperclassmen. Students who pay tuition themselves might have a greater desire to utilize its services than students whose tuition is paid in whole or in part by a third-party.¹⁶³

As a result, even if access was a proper means to assess damages, the different ways students utilize campus amenities would cause alleged damages to be highly individualized. Additionally, in order to assess any losses putative class members might have suffered, one would also have to conduct a student by student analysis to do so.

Additionally, there are benefits to online learning that Mr. Gaskin and Mr. Weir ignore.¹⁶⁴ For example, one study showed that students obtained increased family time and additional free time to either get a job, sleep, exercise, pursue hobbies, personally or professionally develop and pursue other enjoyments of life.¹⁶⁵ Students received additional benefits UD gave them an additional opportunity to choose to take classes pass/fail as opposed to receiving a grade after the transition to virtual education in the Spring 2020 Semester. Many students made such a selection as,

[REDACTED] pass/fail.¹⁶⁶ Taking classes pass/fail allows students to receive credit, while enduring less stress over grades. For example, Ms. Russo testified [REDACTED]

[REDACTED] ¹⁶⁷

[REDACTED] ¹⁶⁸ Being given the opportunity to take these classes pass/fail allowed her to not hurt her GPA as passing a pass/fail course does not impact her GPA. UD would not have given students such an opportunity in the But For World.

Mr. Gaskin and Mr. Weir did not propose any common, formulaic method to measure any value diminishment due to alleged campus amenity utilization.

A student whose parents, grandparents and great-grandparents went to UD might be less price sensitive than one who resides outside of the state and has a lesser attachment to the school. This

¹⁶³ For example, see a discussion of how payment methodology could affect consumption in Gourville, John T. and Dilip Soman "Pricing and the Psychology of Consumption" *Harvard Business Review*, September 2002. <https://hbr.org/2002/09/pricing-and-the-psychology-of-consumption> viewed on June 17, 2021.

¹⁶⁴ <https://www.vox.com/first-person/21433095/coronavirus-covid-19-school-reopening-online-learning-remote>, viewed on August 30, 2022.

¹⁶⁵ Patricia Aguilera-Hermida, A., "College students' use and acceptance of emergency online learning due to COVID-19." *International Journal of Educational Research Open* vol. 1 (2020): 100011. doi:10.1016/j.ijedro.2020.100011.

¹⁶⁶ UD_0242911, UD_0242913 & Russo Deposition, p. 134.

¹⁶⁷ Russo Deposition, p. 134.

¹⁶⁸ UD_0242909-UD_0242911.

price sensitivity would be a highly individualized issue that would impact any alleged value diminishment due to online learning.

3. The Gaskin-Weir Hypothetical Model Did Not Perform Recognized Steps to Reduce the Hypothetical Bias

Survey participants are only making hypothetical, subjective choices. They do not need to bear the consequences of a university selection like actual students do. Analysts have found that this lack of consequences can influence decision making. Mr. Orme wrote that survey

Respondents spend no actual money and they don't have to live with their choices.... Hypothetical bias occurs when we ask respondents what they would choose or how much they'd be willing to pay when facing a hypothetical choice and their answers differ from what they would do in the real market.... Their survey responses, though not accurate, may be perfectly rational.¹⁶⁹

Respondents taking surveys often spend survey dollars more readily than they spend real ones.... This hypothetical bias, the possibility that respondents may behave differently for hypothetical questions they receive in surveys than they would making those changes in a real market, can affect WTP estimates.... It will exaggerate their apparent willingness to pay for product features.¹⁷⁰

Mr. Orme felt that hypothetical bias was such an issue in conjoint surveys that he devoted a whole chapter in his *Becoming an Expert* text to this topic. In that chapter, he identified ways in which hypothetical biases could be reduced including:

- “Reminding respondents of their budgetary constraints”
- “Using brand logos rather than brand names to communicate branding”
- “Asking respondents preliminary questions to remind them of their attitudes and shopping habits”
- Honesty oaths
- Consequence scripts
- Making survey compensation tied to their choices.¹⁷¹

Mr. Gaskin did not perform any of these recommended hypothetical bias reduction steps. As a result, even the author of the texts he claims to be authoritative believes that the results of the Gaskin-Weir Hypothetical Model would be exaggerated.

F. Mr. Gaskin Ignored Individualized Issues

The Gaskin-Weir Hypothetical Model aggregated the (incorrect) preferences they derived from Mr. Gaskin's survey and determined the one set of unique prices that they believed would result. This aggregation process is akin to determining that one set of prices based upon average preferences as the Gaskin-Weir Hypothetical Model has half of the market choose one product and

¹⁶⁹ Orme & Chrzan, p. 11.

¹⁷⁰ Id., pp. 204-205.

¹⁷¹ Id., pp. 13-21.

the other half another product.¹⁷² He applied an average analysis, not Mr. Orme's recommended marginal analysis as discussed above in Section VI.A.

1. The Importance of Market Segmentation

Mr. Orme stated such calculating prices based upon overall market-wide averages as Mr. Gaskin did is incorrect because firms tend to segment the market into different groups and target prices and products to those groups. For example, Mr. Orme stated:

Looking only at average preferences or part-worth utilities can mask important market forces caused by patterns of preference at the segment or individual level. Marketers are often not interested in averages, but in targetable segments or the idiosyncratic behavior of individuals.¹⁷³

If you have segmentation information (such as demographics or firmographics), you can investigate product formulations that appeal to different groups of respondents. It is likely that, by designing products that appeal uniquely to targetable segments, you can increase your overall share for your product line or occupy a niche that is not currently being served.¹⁷⁴

There are a number of fundamental problems with analysis based on average dollar values. First it attempts to ascertain an average willingness to pay for the market as a whole. Firms usually offer products that appeal to specific targeted segments of the market. The firm is most interested in the willingness to pay among its current customers, or among buyers likely to switch products, rather than in an overall market average. Second, this approach does not reference any specific product, but instead considers an average product. We expect that a respondent's willingness to pay for an additional feature would depend upon the specific product that is being enhanced (e.g., a discount or a premium offering). Third, and most fundamental, this approach assumes no competition. Because a product purchase usually constitutes a choice among specific alternatives, the competitive context is a critical part of the purchase situation. [An investigator would come up with a false result if they interpret] average dollar values, without respect to competitive offerings.¹⁷⁵

The Gaskin-Weir Hypothetical Model, which only looks at overall market averages by aggregating all survey respondents, ignores this fundamental segmenting requirement.

¹⁷² Gaskin Report, paragraph 57.

¹⁷³ Orme, p. 90.

¹⁷⁴ Id., p. 92.

¹⁷⁵ Id., p. 86.

2. The Gaskin-Weir Hypothetical Model Improperly Assumes that UD Sets One Unique Tuition Price When In Fact Prices Are Individualized

As discussed in Section V.A.2 above, Mr. Gaskin proposes to combine each respondent's individualized preferences in order to determine his alleged one unique price that he incorrectly claims UD charges for tuition.

However, this assumption further flaws and makes the Gaskin-Weir Hypothetical Model unreliable because the model does not analyze the relevant Net Price students pay. Survey respondents were wrongly told that the tuition prices in the survey did not include any changes in the amount they would pay due to financial aid, work-study, scholarships, or other forms of tuition support, all of which are significant real world factors in Plaintiffs' and putative class members' analysis and decisions.

Universities generally, and UD in particular, does not utilize a one size fits all pricing. Instead, UD segments their customers (students), modify the product (education) each receives and tailors prices (tuition). For example, UD identifies in-state students and sets one set of tuition List Prices. It identifies out-of-state students and sets a different set of List Prices. Nursing students have different tuition List Prices than business students. When UD changes its tuition List Prices, the changes are not necessarily identical for each of these segments. Through the use of financial aid, UD individually evaluates each student's characteristics and adjusts List Prices, as discussed below, to set different tuition amounts for each student.

Marketers call such pricing segmentation. Mr. Orme stated that conjoint analysts should take such market segmentation into account when they construct their models.¹⁷⁶ Because the Gaskin-Weir Hypothetical Model assumes that UD set a common, uniform price to all students, they did not follow Mr. Orme's precepts and their Model is flawed and unreliable.

There are three relevant prices related to tuition and fees: 1) the List Price; 2) the Net Price the University Receives; and 3) the Net Price each Student Pays. All three could have different values and could differ by student on an individualized basis. For example, let's assume that UD set a List Price of \$6,000 for a full-time in-state student and awards that student a \$2,000 scholarship. In this scenario, the Net Price the University Receives is \$4,000, the List Price less the institutional aid that UD provided. Let's further assume that the student's local Chamber of Commerce provided the student with an additional \$1,000 scholarship. The Net Price the Student Pays would then be \$3,000. Consequently, the Net Price the Student Pays equals the List Price less all institutional and third-party financial aid, work-study, scholarships, or other forms of tuition support including subsidized loans.

In order to determine alleged damages in this matter, one would have to calculate how much additional putative class members supposedly paid because of the transition to virtual education. This would require an analysis of the Net Price the Student Pays.¹⁷⁷

However, Mr. Gaskin did not analyze the relevant Net Price the Student Pays. In particular, he told his survey respondents that "the tuition listed below does not include any changes in the

¹⁷⁶ Orme, p. 92.

¹⁷⁷ Affidavit of Mary Booker, UD's Executive Director of Student Financial Services, dated August 26, 2022.

amount you would pay due to financial aid, work-study, scholarships, or other forms of tuition support.”¹⁷⁸

Consequently Mr. Gaskin’s survey analyzes the wrong metric. Given the primacy of all institutional and third-party financial aid, work-study, scholarships, or other forms of tuition support, including subsidized loans in a student and their family’s school selection,¹⁷⁹ Mr. Gaskin cannot properly determine student preferences for schools by ignoring such aid. If preferences are incorrectly determined, Mr. Gaskin’s overcharge percentage and the damages that Mr. Weir calculated using that overcharge percentage would be inaccurate.

Even if Mr. Gaskin analyzed the proper metric, his analysis would still be flawed because he incorrectly assumed that all students faced the same prices. However, as discussed below, UD individually sets 1) the List Price; 2) the Net Price the University Receives; and 3) the Net Price each Student Pays.

As discussed in Section III above, the List Prices for tuition are the amounts UD states are being charged on its website and brochures. The List Prices vary by credit hours taken by a student, resident status, and program enrolled. For example, if enrolled in more than 12 credit hours, a student is charged a uniform full-time List Price for tuition; however, if less than 12 credit hours are taken, a student is charged a List Price per credit hour.¹⁸⁰ In addition, a non-resident surcharge is billed to students who do not reside in Delaware, which increases tuition List Prices by 168% for non-residents compared to Delaware residents.¹⁸¹ Furthermore, students enrolled in the Lerner College of Business & Economics, Nursing program and College of Engineering were charged an extra \$750, \$750 and \$1,250, respectively for the Spring 2020 Semester.¹⁸² Mr. Gaskin and Mr. Weir do not account for such differential List Prices.

UD also customizes the Net Price the University Receives by tailoring the institutional financial aid packages it provides. By providing grants,¹⁸³ scholarships,¹⁸⁴ loans,¹⁸⁵ and work-study jobs,¹⁸⁶ UD individually sets its prices for each student based upon granular characteristics such as financial need, academic ability, intended major and price sensitivity. For example, while Mr. Mickey and Ms. Ninivaggi [REDACTED], Ms. Nigrelli and Ms. Russo [REDACTED].

In addition, the Net Prices Students Pay are also individualized as students receive different third-party aid. For example, while Mr. Mickey [REDACTED], Ms. Ninivaggi, Ms. Nigrelli and Ms. Russo [REDACTED] UD does not necessarily know of all third-party aid a student might have received

¹⁷⁸ Gaskin Report, p. 26.

¹⁷⁹ <https://studentaid.gov/articles/4-things-consider-choosing-college-career-school/> viewed on August 8, 2022.

¹⁸⁰ UD_0188072-UD_0188073.

¹⁸¹ Ibid. This 168% represents the difference for the Fall & Spring Semesters.

¹⁸² UD_0188073.

¹⁸³ UD_0188079. For example, Federal Pell Grants, Federal Supplemental Education Opportunity Grants and The Teacher Education Assistance for Higher Education Grant Program. These examples are federal and state funded grants; however, UD administers the funds.

¹⁸⁴ For example, see UD_0188079.

¹⁸⁵ Ibid.

¹⁸⁶ UD_0188080.

as it could be oblivious to some third-party aid paid directly to a student.¹⁸⁷ For example, a student's family member could have provided the student with the full amount of UD's tuition that the student then used to pay UD. In such a scenario, UD's accounting records for the student would show that they received no financial aid, when in fact, aid accounted for 100% of their tuition payments.

A student in such situation would be incorrectly included in the putative class as they might appear to have been a student payer, but they actually were not as they paid no money toward their tuition. Mr. Gaskin and Mr. Weir have not identified a methodology to identify which UD students were actually student payers. In fact, an individualized analysis studying each students' finances and sources of funds would be required to determine who are student payers and, thus, included in the putative class.

The aforementioned factors have led economists to conclude that "the net price of college ... [has] become increasingly individualized."¹⁸⁸ For example, **Figure 7** shows the individualized List Prices tuitions, Net Prices UD Received and the Net Prices Students Paid for the Named Plaintiffs during the Spring 2020 Semester.

¹⁸⁷ Affidavit of Mary Booker, UD's Executive Director of Student Financial Services, dated August 26, 2022.

¹⁸⁸ "Information Constraints and Financial Aid Policy" Judith Scott-Clayton, NBER Working Paper 17811, February 2012, p. 2.

[illegible]

The above Figure displays many individualized tuition issues.

however, the Named Plaintiffs' Differential Charges varied due to their enrolled programs. For example, Mr. Nigrelli did not incur this charge, Mr. Ninivaggi was

Second, the Net Price the University Received varied for all the Named Plaintiffs because the institutional financial aid they received ranged from [REDACTED]. For example, Mr. Mickey did

189 UD MIC0000022.

190 UD 0187222.

¹⁹¹ UD ⁻ NIN0000012.

192 UD 0187204.

¹⁹³ As mentioned above, students that were enrolled in the Lerner School of Business & Economics as of Spring 2018 received a [REDACTED] credit per semester if enrolled full-time towards their Differential Charge. Therefore, Mr. Ninivaggi's Differential Charge was reduced from [REDACTED]

¹⁹⁴ Declaration of Jake Mickey in Support of Plaintiffs' Motion for Class Certification ("Mickey Declaration"), dated June 28, 2022, paragraph 4, Declaration of Cailin Nigrelli in Support of Plaintiffs' Motion for Class Certification ("Nigrelli Declaration"), dated June 30, 2022, paragraph 4, Declaration of Michael Ninivaggi in Support of Plaintiffs' Motion for Class Certification ("Ninivaggi Declaration"), dated June 30, 2022, paragraph 4 and Russo Deposition, pp. 47-49.

Sixth, one could contend that the Net Price Students Paid was actually zero for all four of the Named Plaintiffs as none of them directly paid for their tuition for the Spring 2020 Semester; their parents paid all amounts owed after accounting for institutional and non-family aid. In such a scenario, the Named Plaintiffs were not damaged by UD's alleged actions because it is illogical to claim that someone overpaid for something that they did not pay for.

In summary, the Named Plaintiffs alone demonstrate the many individualized prices and payments that students and third-party payors make for college tuition as opposed to the incorrect assumption that Mr. Gaskin makes, alleging that there is one unique price that UD charges for tuition.

If, as Plaintiffs allege, UD should have charged different tuition during the Spring 2020 Semester, the aforementioned factors would have made that different tuition be individualized as well. As discussed below in Section XI.A, institutional and third-party aid students received likely would change with tuition changes. For example, that Section shows that a student who received a \$10,000 need-based institutional scholarship when tuition was \$17,000 likely would only receive a \$9,999 need-based institutional scholarship if tuition was reduced to only \$16,999 because universities would still charge a need-based student what they were financially able to pay and grant the remaining amount.

Consequently, even if Mr. Gaskin analyzed relevant prices (the Net Prices Students Paid), he cannot conclude that putative class members were charged and would have been charged specific, classwide tuition amounts. As a result, individualized factors and preferences **would define** both the Actual and But-For World tuitions as well as any price differential or overcharge % that might exist. Consequently, by definition, individualized factors and preferences would be a key determinant of each putative class member's damages.

G. The Gaskin-Weir Hypothetical Model Improperly Ignores Supply Side Issues

The Gaskin-Weir Hypothetical Model is flawed and unreliable because it does not account for required supply side factors, is not based on actual prices, and wrongly imputes market indifference to survey respondents. Further, the two purported supply side factors that Mr. Gaskin and Mr. Weir attempt to use lack academic and/or authoritative support.

The Gaskin-Weir Hypothetical Model relies on Mr. Gaskin's conjoint survey as its sole basis for its measurement of hypothetical tuition "overpayment" damages. Specifically, the Gaskin-Weir Hypothetical Model uses Mr. Gaskin's conjoint survey to determine the reduction in market value or market price between 1) the choice of in-person or virtual classes and full access to UD's campus and facilities and 2) virtual classes and no access to UD's campus or facilities, at the time and point of acceptance.¹⁹⁸

As mentioned above, even if he were able to construct a proper conjoint model, the Gaskin-Weir Hypothetical Model incorrectly assumes that companies and universities blindly apply the results implied by conjoint analyses and do not utilize other tools in arriving at their pricing decisions. Mr. Gaskin and Mr. Weir have not provided any evidence that any university, let alone UD, utilizes conjoint analysis to set prices without considering other factors. Even if conjoint analyses are one

¹⁹⁸ Weir Report, paragraph 51.

way of determining prices, they would not accurately predict prices if UD utilized another method to determine prices because a conjoint survey only measures consumer demand; it does not investigate the supply side factors necessary to calculate the market price. Market prices occur at economic equilibria where demand equals supply. The Gaskin-Weir Hypothetical Model ignores standard economic equilibrium requirements. Instead, it identifies two factors that Mr. Gaskin and Mr. Weir incorrectly assert account for supply side factors. Proper economic analysis demonstrates that their two factors do not generate an economic equilibrium in the Gaskin-Weir hypothetical.

1. Conjoint Analyses Measure Consumer Demand and Do Not Account for Supply Side Factors

As recognized by Sawtooth, the author of the software program Mr. Gaskin utilized to conduct his survey, Mr. Gaskin's survey only focuses on the demand side and does not properly account for supply side issues. Courts have required conjoint analyses to properly address supply side issues.¹⁹⁹ Specifically, in *Jennifer Nemet et al. v. Volkswagen Group of America, et al.*, Judge Charles R. Breyer of the United States District Court in the Northern District of California excluded Mr. Gaskin's conjoint analysis as unreliable.²⁰⁰ In particular, Judge Breyer ruled that:

Mr. Gaskin's analysis could not reliably estimate the market price premium in the matter....Mr. Gaskin does not actually calculate a market price premium; he examines only what consumers say they would be willing to pay for certain vehicles. As Defendants point out, this ignores the "supply" part of the supply/demand curve. "[D]istrict courts across the country have excluded choice-based conjoint analyses that fail to accurately account for supply-side considerations." *MacDougall v. Am. Honda Motor Co.*, No. 17-1079 JBG, 2020 WL 5583534, at *6 (C.D. Cal. Sept. 11, 2020) (collecting cases). Calculating a premium by comparing (1) the actual price of vehicles sold with defeat devices to unwitting consumers, and (2) consumers' willingness-to-pay for vehicles with the defeat device (as opposed to the market price of vehicles with the defeat device) is comparing apples and oranges. And presuming that Defendants would have sold the same number of cars, at the exact price that consumers would have been willing to pay, is not a way to reliably incorporate supply-side considerations. See *In Re General Motors LLC Ignition Switch Litig.*, 407 F. Supp. 3d 212, 239 (S.D.N.Y. Aug 6, 2019) (rejecting a similar argument because it "would mean that a given product is supplied by the manufacturer in the same quantity no matter what the price is" and because it would be "highly unlikely" that a vehicle manufacturer "would have wanted to sell the same amount of cars at the price implied by [the] but-for analysis").²⁰¹

Sawtooth's own documentation states that conjoint analyses are "used to measure preferences for product features, to learn how changes to price affect **demand** for products or service."²⁰² Mr. Orme stated that a conjoint analysis "focuses on the demand side of the marketing equation; **but**

¹⁹⁹ For example, see *In re: General Motors LLC Ignition Switch Litigation*, 14-MD-2543 (SD NY, 2019).

²⁰⁰ *Jennifer Nemet et al. v. Volkswagen Group of America, et al.*, pp. 11-12.

²⁰¹ *Jennifer Nemet et al. v. Volkswagen Group of America, et al.*, pp. 11-12 (citations omitted).

²⁰² Sawtooth Software, "What is Conjoint Analysis?" 2018. (**emphasis** added).

it is also important to pay attention to the supply side and take the costs of producing different products/services into consideration.... [a] good [conjoint analysis] is like having all of your respondents gathered in one room for the sole purpose of voting on product concepts within competitive scenarios.”²⁰³

Ignoring supply side conditions has “a tendency to overstate the economic value of [the Alleged Issue] as they are only measures of shifts in demand and do not take into account the competitive response to the [Alleged Issue].”²⁰⁴

Mr. Orme wrote that:

Developing and repositing products or services requires a combined knowledge of people’s preferences *together with* consideration for what offerings are currently available or expected to become available. If you only examine the part-worth utility scores, you ignore critical information (available alternatives) needed to make the best decisions. Certainly, preference scores provide great insights! But, they are only part of the equation.²⁰⁵

For example, Mr. Orme noted that if 80% potential buyers preferred round widgets, a part-worth utility analysis would suggest that you should produce round widgets. However, the production decision likely would change if one learned that ten competitors were offering round widgets and nobody was offering square widgets.

It is standard in economics to draw conclusions about market prices that result from economic equilibria.²⁰⁶ Recognizing the importance of equilibrium outcomes, Sawtooth notes:

The problem with [conclusions from conjoint analyses] is that they are not equilibrium outcomes. [A conjoint analysis] measures only a shift in the demand curve and not what the change in equilibrium price will be as the feature is added or enhanced....

We advocate using equilibrium outcomes (both price and shares) to determine the incremental economic profits that would accrue to a firm as a product is enhanced. In general, [solely using conjoint analyses] will overstate the change in equilibrium price and profits [and damages].²⁰⁷

Mr. Gaskin and Mr. Weir do not demonstrate that their proposed analysis results in an economic equilibrium. Non-equilibrium results don’t economically “happen” in the real world; equilibrium only results where consumers and suppliers both realistically react.

²⁰³ Orme, pp. 92 & 89. (**emphasis** added). Such conjoint analyses are called market simulators as they simulate how **consumers** would reach to product choices the market presents.

²⁰⁴ Allenby, G.M., J. Brazell, J.R. Howell, and P.E. Rossi, “Economic Valuation of Product Features” (working paper), September 2013, p. 43.

²⁰⁵ Orme & Chrzan, p. 210.

²⁰⁶ For example, see Varian, Hal R. “Price Discrimination,” Working Paper, July 1987 (“Varian”), Chapter 2 and Kreps, David M. *A Course in Microeconomic Theory*, 1990 (“Kreps”), Chapters 6–10.

²⁰⁷ Sawtooth Proceedings, p. 342.

2. Properly Accounting for Supply Side Factors

A multi-step process is needed in order to determine the economic equilibria. A supplier begins by evaluating consumer preferences. The supplier then determines the price it will charge by investigating the interaction between these preferences, the prices other suppliers charge, and its own cost of production. It often segments consumers into distinct groups and sets different prices and product characteristics it intends to be used by each group, just like airlines that charge different prices for different tickets. This price determination process requires the investigation of customer price sensitivity and its own cost sensitivity.²⁰⁸ For example, Sawtooth wrote:

To compute equilibrium outcomes, we will have to make assumptions about cost and the nature of competition and the set of competitive offers.... In particular, greater care to include an appropriate set of competitive brands, handle the outside option appropriately, and estimate price sensitivity precisely must be exercised.²⁰⁹

Suppliers must evaluate the way in which consumers purchase products in this price determination process. For example, conjoint analyses examine when consumers make uniform one-time, one-product purchases. However, different models need to be employed to economically analyze situations where suppliers can set different prices to different consumers, like the aforementioned airline example.²¹⁰ Such economic models identify characteristics that differentiate consumers. In general, the more differentiating characteristics that exist, the more a supplier could individually tailor its pricing.

Additionally, consumers often purchase multiple products in a bundle. For example, students purchase tuition, fees, room, board and other items over multiple semesters in one bundle. Educators call all of these items together as a bundle.²¹¹ Recognizing the various line items in a student's bill, publications like *U.S. News and World Report* also combine the published tuition and fee prices for each listed school.²¹² In fact, some universities "charge 'comprehensive fees' — the total for tuition, fees, and room and board combined."²¹³

Current U.S. Treasury Secretary Janet Yellen co-authored with William James Adams one of the seminal economic articles on bundling in 1976.²¹⁴ Drs. Yellen and Adams demonstrated that it is improper to analyze the price of one item in a bundle by itself; the combined prices of all products in the bundle must be analyzed. In particular, they concluded that bundling "seriously complicates public appraisal of [and] affects certain conclusions that may be drawn from" individual product prices.²¹⁵

²⁰⁸ Price sensitivity measures the degree to which a consumer's demand changes with a change in price. Cost sensitivity measures the degree to which a supplier's cost changes with a change in production.

²⁰⁹ Sawtooth Proceedings, p. 342.

²¹⁰ Varian, Chapter 2.

²¹¹ For example, see <https://www.investopedia.com/terms/b/bundling.asp> viewed on October 28, 2021.

²¹² <https://www.usnews.com/education/best-colleges/paying-for-college/articles/what-you-need-to-know-about-college-tuition-costs> viewed on October 27, 2021.

²¹³ <https://bigfuture.collegeboard.org/pay-for-college/college-costs/quick-guide-college-costs> viewed on March 22, 2021.

²¹⁴ Adams, William James and Janet Yellen (1976) "Commodity Bundling and the Burden of Monopoly" *Quarterly Journal of Economics*, 90: ("Adams and Yellen") 475-98.

²¹⁵ *Id.*, p. 477 & 497.

Additionally, institutions can have regulatory or other constraints that prevent them to charging desired prices.

3. The Gaskin-Weir Hypothetical Model Does Not Account for Required Supply Side Factors

The Gaskin-Weir Hypothetical Model does not properly account for the aforementioned supply side factors.

First, the Gaskin-Weir Hypothetical Model does not analyze UD's costs or its cost sensitivity at all. For example, schools that have some supply constraints (e.g., not enough dorm space) could have different views on pricing than those without such constraints. The fact that UD does not admit all students who want to attend UD is consistent with such supply constraints. When supply constraints exist, standard economic models like Mr. Gaskin's conjoint analysis are inapplicable. In fact, the Orme textbook that Mr. Gaskin considers the authoritative source on the conjoint analyses that underlie the Gaskin-Weir Hypothetical Model states that "conjoint utilities cannot account for many real-world factors that shape market shares, such as length of time on market, distribution, out-of-stock conditions, advertising, effectiveness of sales force, and awareness."²¹⁶ Out-of-stock conditions are synonymous with supply constraints.

Second, the Gaskin-Weir Hypothetical Model did not analyze the price sensitivity of all putative class members as required to construct an economic equilibrium. Price sensitive students might be economically better off deciding not to attend if faced with certain prices. The Gaskin-Weir Hypothetical Model does not account for such a possibility.

Third, the conclusions Mr. Gaskin and Mr. Weir would draw from their analysis of tuition and no analysis of fees, room and board, and other expenditures in the Spring 2020 Semester would be fatally flawed as students generally purchase most or all of the aforementioned items in one bundle. As discussed above, the current U.S. Treasury Secretary demonstrated that one has to jointly study the combined prices of all products in the bundle.

Fourth, because the quality of college is hard to identify, as discussed in Section IV.B above, the prices universities charge "is taken by many to be an indicator of quality; if an institution lets its tuition fall relative to its competitors, it runs the risk of being perceived as an inferior institution."²¹⁷ As a result, a university might not lower its tuition even if suggested by a hypothetical model that does not take into account this quality effect (like the Gaskin-Weir Hypothetical Model).

Because of this lack of necessary supply side analyses, the Gaskin-Weir Hypothetical Model is not suited to assess damages in this matter.

²¹⁶ Orme, pp. 104-105.

²¹⁷ Arnott, p. 36.

4. Mr. Gaskin and Mr. Weir Did Not Provide Any Academic Support for His Two Claimed Supply Side Factors

Mr. Gaskin and Mr. Weir incorrectly claim that supply side issues (involving what a university decides to charge) can be addressed by 1) using (what they erroneously consider to be) actual prices charged by the market, reflecting both in and out-of-state tuition prices in which the University and its competitors are located and 2) having all putative class members enroll at a virtual, no campus access UD.²¹⁸

While they make such a statement, they do not provide any academic support or cite to any recognized conjoint industry publication that validates such assertions. Without such references, Mr. Gaskin and Mr. Weir cannot claim that the supply side aspects of the Gaskin-Weir Hypothetical Model are accepted by the academic, marketing, and conjoint analysis profession.

Notably, neither Mr. Gaskin nor Mr. Weir state that considering these two factors results in an economically required equilibrium.

5. The Gaskin-Weir Hypothetical Model Does Not Account for Their Two Purported Supply Side Factors

Even if Mr. Gaskin and Mr. Weir provided academic support for their two purposed supply side factors, their Proposed Methodology does not abide by them.

a. Mr. Gaskin's Conjoint Survey Does Not Utilize Actual Prices

The prices Mr. Gaskin proposes to utilize in his survey are not what UD charged during the Spring 2020 Semester.

As mentioned above, there are three relevant prices related to tuition and fees: 1) the List Price; 2) the Net Price the University Receives; and 3) the Net Price Students Pay. Mr. Gaskin's proposed survey intends to only utilize UD's List Price as it ignores "financial aid, work-study, scholarships, or other forms of tuition support."²¹⁹

Economists have found university List Prices to be "uninformative." In particular,

the school's listed tuition [and fees] – its "list price" – is often about as **(un-)informative** as the list price of a car. Many students pay less than the list price, and hence any study using listed tuitions [and fees] as the price of education **will exaggerate** both the real cost to students and the school's tuition revenue....

With financial aid in the form of a tuition discount common, list price is frequently less meaningful than "net tuition" – the discounted price – not to mention other forms of student aid, including loans and work-study jobs.²²⁰

²¹⁸ Weir Report, paragraph 32-41. Gaskin Report, paragraph 22.

²¹⁹ Gaskin Report, page 26.

²²⁰ Weisbrod, p. 78 & 80. (**emphasis** added)

Because Mr. Gaskin's proposed survey would be based upon uninformative and exaggerated List Price data, his conjoint analysis would likewise be uninformative and exaggerated even if Mr. Weir were able to incorporate financial aid in his application of the conjoint analysis results.

Less than 50% of full-time undergraduate students at UD had its published List Prices for tuition during the 2019-2020 academic year paid on their behalf as most students receive financial aid of some sort.²²¹ Consequently, Mr. Gaskin's proposed survey does **not** utilize actual prices that resulted from real-world transactions that *already* reflect the supply-side factors then extant in the marketplace. However, Mr. Weir utilized that exact phraseology (utilizing "real-world transactions occurred at prices that *already* reflect the supply-side factors then extant in the marketplace") as a necessary input to a proper conjoint analysis.²²² List Prices are not real-world transactions that occurred; Net Prices are. Therefore, Mr. Weir's own statements regarding the importance of incorporating prices resulting from real-world transactions demonstrate the flaw in Mr. Gaskin ignoring financial aid in his conjoint analysis.

If Mr. Gaskin utilized the Net Prices that UD Received or the Net Price Students Paid, given the above, he likely would find that the tuition faced by a portion of the putative class members is outside of his proposed ranges. For example, Mr. Gaskin's included five List Price options that start at \$3,250, then increase in \$3,500 increments up to \$17,250. However, the in-state UD List Price for tuition for the Spring 2020 Semester was only \$6,365. Thus, Mr. Gaskin only had one alleged price that would be lower than the in-state List Price at UD (\$3,250), but in-state students that were awarded financial aid in excess of \$3,115 (or 49% of the List Price) would not have representative prices included in Mr. Gaskin's survey.

Additionally, even at the List Price level, UD had prices outside Mr. Gaskin's range of \$17,250. For example, out-of-state students enrolled in the business, nursing and engineering colleges all have List Prices higher than his range due to the differential tuition charge that is applied to their programs. Out-of-state nursing, business and engineering students would be charged \$17,830, \$17,830, and \$18,330, respectively. The Named Plaintiff Mr. Mickey [REDACTED]

In addition, if Mr. Gaskin properly considered the List Prices of all his universities in his alleged four-school competitive set, he would realize that the University of Pittsburgh has List Prices outside of his tuition range as well because their out-of-state tuition was \$20,754 for their School of Nursing and School of Health and Rehabilitation Sciences the Spring 2020 Semester.²²³ Since some real world List Prices were not reflected in Mr. Gaskin's survey, the results are further inaccurate and unreliable.

In addition, it would be difficult, if not impossible, for Mr. Gaskin to demonstrate that the tuition ranges in his survey contained the actual tuition that all UD students paid as such payments could not be obtained in a non-individualized, uniform manner. While UD possesses information on its List Prices, it does not possess information on all internal financial aid the school grants as, for example, it is my understanding that the Office of Financial Aid might not know about some departmental scholarships and some third-party financial aid students might receive. The analyses required to determine alleged damages require such individualized information, which Mr. Gaskin

²²¹ UD_0240157.

²²² Weir Report, paragraph 38.

²²³ <https://catalog.upp.pitt.edu/content.php?catoid=170&navoid=15111>, viewed on August 30, 2022.

and Mr. Weir did not obtain. Individualized inquiries would also be needed to determine the amounts students who received loans and work-study grants actually paid as discussed above in Section VI.F.2.²²⁴

Furthermore, Mr. Weir recognized that Mr. Gaskin's survey would not be using actual prices as Mr. Weir proposes to utilize different prices in his portion of the Gaskin-Weir Hypothetical Model. While Mr. Gaskin intends to utilize prices that ignore "financial aid, work-study, scholarships, or other forms of tuition support," Mr. Weir includes institutional "financial aid, work-study, scholarships, or other forms of tuition support" provided by UD in his analysis as he plans to utilize "the amount the class paid in instructional fees and non-residential fees" in his proposed model.²²⁵ Not only does this price disconnect demonstrate the flaws in Mr. Gaskin's proposed survey, but it also begs the question whether his survey results could be applied to Mr. Weir's proposed calculations. An "overcharge percentage" calculated based upon List Prices cannot be blindly used in a calculation based upon the Net Prices Students Paid. Economic articles have shown that consumers have different price reactions at different price levels (e.g., more sensitive to price changes at higher / lower price levels).²²⁶

Neither Mr. Gaskin nor Mr. Weir provided academic support for extrapolating a survey result based on one price that is definitionally higher (e.g., List Price) to a population that is based on a definitionally lower price (e.g., Net Price). In fact, Mr. Weir testified he did not have academic support, but he claimed he had practical experience of doing this.²²⁷ For example, he said he has applied an overcharge percentage based on surveyed MSRPs for cars to a population of net prices after discounts.²²⁸ However, this example is not congruent with universities who charge vastly different net prices due to their respective discounts. Cars are often sold at prices around 95% of their MSRP, but currently, many cars are selling above MSRP due to inventory issues;²²⁹ whereas, UD's in-state undergraduate student's net price was 64.6% of their List Price in the 2019-2020 academic year.²³⁰ Thus, Mr. Weir's supposed practical experience would not apply to the higher education industry.

Furthermore, Mr. Weir did not base his calculations on the Net Prices Students Paid. Instead, because he only subtracted institutional aid from UD's List Prices, Mr. Weir's calculations are based on the Net Prices UD Received, not the Net Prices Students Paid. Because the former exceeds the latter, Mr. Weir overstated the alleged damages.

²²⁴ Student loans are sometimes subsidized with lower interest rates. As the benefits students receive from these loans equal the subsidy, not the entire amount of the loan, one would have to individually compare the terms of the subsidized loan to the terms that that student could have received from an independent lender. To determine the portion of work-study funds students received that are actually a reduction in the price they paid, one would have to compare work-study earnings to the earnings that that student would have received from an independent employer.

²²⁵ Weir Report, paragraph 53.

²²⁶ For example, see Huang, Ava, John Dawes, Larry Lockshin, Luke Greenacre "Consumer response to price changes in higher-priced brands" *Journal of Retailing and Consumer Services*, Volume 39, November 2017, p. 1 – 10.

²²⁷ Weir Rough Deposition, pp. 173-175.

²²⁸ Id., pp. 173-174.

²²⁹ <https://www.autotrader.com/car-shopping/buying-car-how-much-do-dealers-mark-car-over-invoice-price-228247> viewed on August 22, 2022. In April 2021, average transaction price was \$41,172 with an average discount of \$1,850 [$95.7\% = 41,172 / (41,172 + 1,850)$].

²³⁰ <https://nces.ed.gov/collegenavigator/?q=university+of+delaware&s=all&id=130943#finaid>, viewed on August 22, 2022. Net price of \$19,747 / Cost of Attendance of \$30,552 = 64.6%. Out of state students' net price was not reported.

b. Mr. Gaskin's Conjoint Survey Does NOT Have ALL Putative Class Members Enroll at UD

Mr. Gaskin and Mr. Weir claim that they address supply side factors because their Methodology has all putative class members continue to enroll at UD in their hypothetical But For World where UD “properly” priced its Spring 2020 Semester offerings.²³¹

However, their Methodology **does not** have **all** putative class members continue to enroll at UD in their hypothetical But-For World. In fact, Mr. Gaskin specifically stated that he would set prices so that only **half** of the putative class would enroll. In particular, Mr. Gaskin wrote that:

I identified the tuition cost **such that** half of the market (as represented by the data from all of the respondents in our analysis) chose the University of Delaware with the Closure of the University Campus and half of the market chose the University of Delaware without the Closure of the University Campus (i.e., each one had a market share of 50%).²³²

Consequently, Mr. Gaskin is incorrect when he stated that his proposed respondents would be indifferent between each university.²³³ He has identified a proposed methodology in which respondents have specific preferences; half of the proposed respondents would have one preference; half the other. I have seen no authoritative economic definition specifically utilizes the word *indifferent* to describe such a market. Their definition of indifference in actuality described a market with equal shares, not true economic indifference.

A market being indifferent implies that that each and every respondent would obtain the same value if they selected the “second university with online classes” or the “first university with in-person classes.”²³⁴ With such indifference, if the price of the first university increased by a penny, economic models imply that all respondents would select the second university and visa versa.

On the other hand, none of the respondents in the Gaskin survey **equally** prefer the first and second universities. Half of the respondents in the Gaskin-Weir Hypothetical Model strictly prefer the first university to the second and the other half of the respondents strictly prefer the second university over the first. Therefore, under the incorrect Gaskin-Weir definition of indifference, if the price of the first university increased by a penny, economic models would imply that roughly half of the respondents would still prefer the first university and roughly half would still prefer the second.

Market equilibrium prices cannot be derived using Mr. Gaskin and Mr. Weir's definition of indifference. They have not shown that market equilibria always exist when the two products on the market have equal market share. Because of this foundational error, the prices and the resulting Overcharge Percentage Mr. Gaskin calculated is erroneous. As mentioned above in Subsection G.1., Judge Breyer also stated that allegedly including all putative class members as purchasers in the But-For World does not reliably incorporate supply-side considerations.

²³¹ For example, see Gaskin Report, paragraph 32.

²³² Id., paragraph 57. (**emphasis added**)

²³³ Ibid.

²³⁴ Microeconomic Analysis, pp. 112-113.

As a result, Mr. Gaskin and Mr. Weir's proposed analysis does not meet their supposed necessary condition to account for supply side factors. According to Mr. Weir, their own analysis is "antithetical to the concept of class definition."²³⁵

H. Even if the Gaskin-Weir Hypothetical Model Properly Identified Respondent Preferences, It Performed An Improper Market Simulation

The Gaskin-Weir Hypothetical Model is flawed and unreliable because Mr. Gaskin performed an improper market simulation, which is the second step of his analysis, by only considering a hypothetical "market" that only included two "products" with fixed attributes and levels. To properly perform a market simulation, Mr. Gaskin should have at least included all of the allegedly relevant comparable products (e.g., universities), attributes, and attribute levels that occurred in the Actual World and would have occurred in the But-For World when he determined his respondents' preferences, which is the first step of his analysis.

In particular, one of the Orme texts that Mr. Gaskin used as the methodological basis for his market simulation stated that after determining respondents' preferences by asking them to decide between realistic products on the market and not putting unrealistic constraints on those decisions, the market simulation should be performed by adding a new product or modifying an existing product **to the market with the realistic products that were considered in the first stage of the analysis**. Based on this modified market, the conjoint analysis could be used to forecast what sales would be for all products in the market.

For example, Mr. Orme wrote that:

If a firm wants to assess the incremental demand resulting from offering specific features for its product, or improving its degree of performance, it should be estimated within a realistic competitive context.²³⁶

Conjoint simulators may be used to answer questions about new products and new product introductions. Given a current competitive environment, what product should I offer to maximize interest in my offering? ... Therefore, if you have measured the relevant brands and features offered in the market, you can simulate a realistic market scenario within the market simulator. Within that market scenario, you can add a new product and see how well it competes.²³⁷

[To determine consumers' reactions to different products / prices, one should] add a product alternative to the base-case scenario or choice set.... We assume other product attributes and prices do not change from the base-case scenario, and we run an additional market simulation, estimating shares of preference under the expanded scenario.²³⁸

²³⁵ Weir Report, paragraph 33.

²³⁶ Orme, p. 87. Also see, p. 83.

²³⁷ Id., p. 92.

²³⁸ Id., p. 113.

Mr. Gaskin did not perform such a proscribed simulation in order to calculate his Overcharge Percentage. Even if one (incorrectly) considers that Mr. Gaskin included all relevant comparable products, attributes and attribute levels when he determined his respondents' preferences, he performed his simulation by ignoring almost all of products, attributes and attribute levels. He created a new "market" with just two "products." By ignoring all other relevant products, Mr. Gaskin did not implement the model his authoritative text states he should have.

I. The Gaskin-Weir Hypothetical Model Utilizes An Incorrect Sample Size

Mr. Gaskin incorrectly claims that his proposed surveys of only 300 people have a sufficient sample size. However, the Chapter Mr. Gaskin cites to in support does not make any such assertion. The Chapter also does not state that 1,000 observations is a sufficient sample size.

Rather, that Chapter begins by stating that it is difficult to determine required sample sizes because many issues come into play, including :

- What is it exactly that you are trying to measure to get a statistically significant result: a specific part-worth, preferences for a product, or the difference in preferences between groups of people?
- Do you expect that the differences between features/products/groups you are trying to detect are subtle or strong?
- What level of certainty do you need to be able to act upon your conclusions: 99% confidence, 90% confidence, or what?
- How large is the total population in the market for your product?
- What conjoint methodology do you plan to use? How many conjoint questions will each respondent answer?
- Do you need to compare subsets of respondents, or are you going to be looking at results only as a whole?
- How homogenous is your market? Do people tend to think alike, or are there strong differences in preferences among individuals?
- How do you plan to select your sample? Will it be a random sample or convenience sample?
- How large of a budget do you have for the project?

Answers to these questions play a role in determining the appropriate sample size for a conjoint study.²³⁹

Mr. Gaskin did not address any of these questions.

The Chapter states that properly determining sample size involves "statistical theory and formulas."²⁴⁰ Most of the rest of the Chapter describes such theories and formulas and specifies

²³⁹ Orme, p. 57.

²⁴⁰ Ibid.

statistical tests that would be required to determine proper sample sizes that Mr. Gaskin did not propose to perform.²⁴¹

The Chapter goes on to state that “[t]hough most of the principles that influence sample size determination are based on statistics, successful researchers develop heuristics for quickly determining sample sizes based on experience, rules-of-thumb, and budget constraints.”²⁴² Based upon Mr. Gaskin’s proposed sample size of 300, he likely utilized a rule of thumb proposed by Johnson.²⁴³

However, in doing so, Mr. Gaskin ignored the fact that the Chapter described sample sizes based upon rules of thumb are “suggestions,” and that the actual sample size utilized should be based on “the application of statistical principles.”²⁴⁴ He also did not show that the rule of thumb he proposes to utilize is sufficiently precise and reliable. Furthermore, the Chapter states that “[o]ver the years, we have become concerned that practitioners [like Mr. Gaskin] use Johnson’s rule-of-thumb to justify sample sizes that are too small” and recommends sample sizes that are at least five times what Mr. Gaskin proposes.²⁴⁵

The chapter on which Mr. Gaskin relied for his sample size determination explicitly stated that the rules of thumb it stated were not statistically rigorous and that:

A thorough discussion of sampling and measurement errors would require more time and many more pages. The reader is encouraged to consult other sources in these areas.²⁴⁶

Mr. Gaskin testified that any sample size greater than 30 is sufficient.²⁴⁷ However, such a statement is statistically incorrect. If a sample size is greater than 30, the Central Limit Theorem implies that the resulting statistical distribution is approximately Normal.²⁴⁸ Being approximately Normally distributed allows a statistician to utilize certain mathematical formula to test the sufficiency of sample sizes in a proposed survey; it does not imply that those sample sizes would pass those statistical tests.

Mr. Gaskin also incorrectly testified that because statistical power is continuous, he could ignore threshold values.²⁴⁹ While it is well accepted that statistical power is continuous, statistics tests still define thresholds. I have seen no authoritative statistics text state that because statistical power is continuous, thresholds could be ignored like Mr. Gaskin claims.

²⁴¹ Id., pp. 57-65.

²⁴² Id., p. 58.

²⁴³ Id., p. 64. Rich Johnson is a leader in marketing research per Huber, J. (2005). What Has Marketing Learned from Richard Johnson? *Journal of Marketing Research*, 42(3), 250–253. <http://www.jstor.org/stable/30162367>.

²⁴⁴ Id., p. 65.

²⁴⁵ Id., p. 64.

²⁴⁶ Id., p. 65.

²⁴⁷ Gaskin Deposition, pp. 204-205.

²⁴⁸ [https://www.investopedia.com/terms/c/central_limit_theorem.asp#:~:text=Key%20Takeaways-,The%20central%20limit%20theorem%20\(CLT\)%20states%20that%20the%20distribution%20of,for%20the%20CLT%20to%20hold](https://www.investopedia.com/terms/c/central_limit_theorem.asp#:~:text=Key%20Takeaways-,The%20central%20limit%20theorem%20(CLT)%20states%20that%20the%20distribution%20of,for%20the%20CLT%20to%20hold), viewed on August 22, 2022.

²⁴⁹ Gaskin Deposition, pp. 34-35

Without performing any of the required statistical analyses, Mr. Gaskin cannot conclude that his proposed sample sizes are sufficient.

VII. Mr. Gaskin's Conjoint Survey Analysis is Hypothetical, Flawed, Biased & Statistically Unreliable

Statistics is vital to analyses of the type Mr. Gaskin performed. In essence, Mr. Gaskin performed a survey on allegedly relevant customers of allegedly relevant universities. He attempted to extrapolate results from his survey to all purchasers in the putative class. Mr. Gaskin claims he utilized the Reference Manual on Scientific Evidence ("Reference Manual") as one of the theoretical bases for his survey and attempted extrapolation.²⁵⁰

However, Mr. Gaskin's survey and extrapolation do not meet the requirements set forth in the Reference Manual.

The Reference Manual states "[i]n short, a good survey defines an appropriate population, uses a probability method for selecting the sample, has a high response rate, and gathers accurate information on the sample units."²⁵¹ Statistical tools such as variance, standard deviation, and confidence intervals should be applied to best describe the survey's results. Because "[i]n practice, surveys typically count or measure only a portion of the individuals or other units that the survey is intended to describe,"²⁵² unbiased, representative and non-"cherry picked" sampling is required.

In addition, the procedures underlying the survey must be documented. For example, the Reference Manual states:

To make it possible for the court and the opposing party to closely scrutinize the survey so that its relevance, objectivity, and representativeness can be evaluated, the party proposing to offer the survey as evidence should also describe in detail the design, execution, and analysis of the survey. This should include (1) a description of the population from which the sample was selected, demonstrating that it was the relevant population for the question at hand; (2) a description of how the sample was drawn and an explanation for why that sample design was appropriate; (3) a report on response rate and the ability of the sample to represent the target population; and (4) an evaluation of any sources of potential bias in the respondents' answers.²⁵³

As set forth below, Mr. Gaskin did not properly perform all of these required steps.

²⁵⁰ Gaskin Report, Exhibit B.

²⁵¹ *Reference Manual on Scientific Evidence* Third Edition, Federal Judicial Center, 2011 ("Reference Manual"), p. 226.

²⁵² *Id.*, p. 361.

²⁵³ *Id.*, p. 362.

Without documented proof, it is standard to assume that the sample selected was biased, non-representative, and/or “cherry picked.”²⁵⁴ Even though online surveys have been accepted by courts, such a fact does not excuse a surveyor from performing the aforementioned required steps.

A. Mr. Gaskin Did Not Properly Statistically Analyze the Results of His Survey; Such a Statistical Analysis Shows his Survey Is Unreliable

The Gaskin-Weir Hypothetical Model is flawed and unreliable because it failed to properly statistically analyze the survey results, which analysis shows that the results are unreliable as discussed below. A more complete statistical analysis demonstrates that his survey could not be used to calculate damages with reasonable certainty.

First, the Reference Manual states that “if the calculation shows a wide interval, that may be a useful indication of the limited value of the estimate.”²⁵⁵ As shown below, Mr. Gaskin’s conjoint survey generated a wide interval of results.

In particular, Mr. Gaskin’s alleged Overcharge Percentage of 15.16% was calculated based upon him selecting one of his conjoint analysis simulation (\$2,614.33) results that allegedly estimated the value of the in-person tuition premium and dividing it by the highest tuition range included in his survey (\$17,250). This was not a scientific estimate of the alleged Overcharge Percentage or even formulaic output from Sawtooth; rather, Mr. Gaskin alleged that it was just the most conservative estimate.²⁵⁶ On Exhibit K-3 of Mr. Gaskin’s report, he shows all the formulaic outputs from his conjoint survey, which all vary depending upon which tuition price he selects to run his simulation. **Figure 8** below shows what Mr. Gaskin presented on his Exhibit K-3 but also calculates what the alleged Overcharge Percentage would have been based on each of the simulated prices.

Figure 8						
Mr. Gaskin’s Range of Alleged Overcharge Percentages Based Upon Price						
Description	Price 1	Price 2	Price 3	Price 4	Price 5	Gaskin
Classes held online; no access to campus or facilities	\$3,250	\$6,750	\$10,250	\$13,750	\$17,250	n/a
Randomized First Choice Simulation Result (Alleged In-Person Premium)	\$4,260	2,614	\$3,195	\$2,866	n/a	2,614
Simulated In-Person Price	\$7,510	\$9,364	\$13,445	\$16,616	\$17,250	\$17,250
Alleged Overcharge Percentage	56.72%	27.92%	23.76%	17.25%	n/a	15.16%

As Figure 8 shows, the ranges for Mr. Gaskin’s alleged Overcharge Percentage range from 15.16% to 56.72%, or a difference of 41.56%. This is a wide range of alleged Overcharge Percentages. Again, Judge Breyer in *Volkswagen* excluded Mr. Gaskin’s testimony as unreliable because he

²⁵⁴ According to the Reference Manual (p. 283), bias is defined as “Also called systematic error. A systematic tendency for an estimate to be too high or too low. An estimate is unbiased if the bias is zero. (Bias does not mean prejudice, partiality, or discriminatory intent.)”

²⁵⁵ Id., p. 383.

²⁵⁶ Gaskin Report, paragraph 57.

calculated radically different alleged Overcharge Percentages in that case as well. Specifically, he stated that

the results of Mr. Gaskin's analysis indicate that his methodology was not reliable....Further, Mr. Gaskin calculated radically different "overcharge" percentages depending on the price of the vehicle (ranging from 8.5% to 60.5%). An overpayment ratio might sensibly vary depending on price, see Gaskin Reply ¶24, but a range that resembles 'somewhere between almost nothing and almost everything' is facially unrealistic. Merely picking the lowest number in that range does not remove doubt."²⁵⁷

The California Supreme Court reached a similar conclusion in *Duran v. U.S. Bank* 325 P.3d 916, 937-38 (Cal. 2014), when they excluded a Plaintiffs' expert because their calculations were not sufficiently precise.

Second, Mr. Gaskin attempted to further justify his methodology by claiming that the figures he utilized are "conservative."²⁵⁸ However, in granting a motion to exclude another expert's testimony, Judge Milton Shadur of the US District Court for the Northern District of Illinois wrote,

Note, for example, how quick "Dr. Economist" in the sample testimony is to exploit the method's malleability by suggesting that he *could* have picked a higher number (like \$5 million) and that by opting for the lower figure he is somehow rendering a "conservative" opinion. Maybe so, but a conservative opinion in that sense does not equate to a scientific one. Someone who states on the basis of a dull pain in his right knee that he thinks it is going to rain less than .1 inch expresses a conservative, but surely an unscientific, opinion.²⁵⁹

Thus, Mr. Gaskin's arbitrary selection of the alleged in-person premium calculated utilizing a price of \$6,750 and then actually comparing it arbitrarily to \$17,250 because it is conservative is again unscientific and an unreliable methodology.

Third, Exhibit J-2 of Mr. Gaskin's Report also shows how unreliable his model is. That Exhibit performs a hit rate analysis, which attempts to determine the predictability of a statistical model.²⁶⁰ As Mr. Gaskin found a 65% hit rate, the Gaskin-Weir Hypothetical Model does not accurately predict respondent behavior approximately one-third of the time. Mr. Gaskin has not demonstrated that presenting a model that fails approximately one-third of the time is sufficiently reliable for a damages assessment in a court of law.

Consequently, Mr. Gaskin's analysis is unreliable based upon the Reference Manual and court decisions that commented on similar methodological issues.

²⁵⁷ *Jennifer Nemet et al. v. Volkswagen Group of America, et al.*, pp.12-13.

²⁵⁸ Gaskin Report, paragraph 57.

²⁵⁹ *Ayers v. Robinson*, 887 F.Supp. 1049 (N.D. Ill. 1995), p. 15.

²⁶⁰ Gaskin Report, Exhibit J-2.

B. Mr. Gaskin's Own Survey Results Demonstrate the Need for Individualized Inquiry to Assess Liability & Damages

The Gaskin-Weir Hypothetical Model is flawed and unreliable because it selectively ignores the survey data establishing that determining each putative class member's alleged damages requires highly individualized analysis because Mr. Gaskin's own survey data, which Mr. Weir relied upon, show that determining each putative class member's alleged damages would be a highly individualized endeavor.

1. Participants in Mr. Gaskin's Survey Preferred Online

For example, while I believe these utilities are inaccurate and biased, to aid the Finder of Fact, I analyzed Mr. Gaskin's individual respondents' utilities for the Class and Campus Format attribute to see who preferred a virtual or in-person modality.

As shown in **Figure 9**, over one-quarter of Mr. Gaskin's 994 respondents preferred virtual classes with no access to campus to in-person classes and campus access. Such respondents would not be as allegedly damaged as the respondents who preferred classes in-person with access to campus and facilities the most. Thus, Mr. Gaskin's survey data shows that an individualized analysis of the putative class members is required to assess liability and damages.

Figure 9 Distribution of Class and Campus Format Preferences		
Class and Campus Format	Participants that Preferred Option More	% of Total Participants
Option 1: "Classes held online; no access to campus or facilities"	283	28.47%
Option 2: "Classes are offered in person; have access to campus and facilities"	711	71.53%
Total	994	100.00%

2. Mr. Gaskin's Survey Participants Have Individualized Preferences & Do Not Care About Certain Attributes

Mr. Gaskin presented how much his survey respondents valued each attribute included in his conjoint survey in Exhibit I of his Report. However, he only presented average valuations. The Reference Manual states that such a simplistic analysis is not recommended. First, the Reference Manual calls upon people conducting surveys to construct statistical confidence intervals around averages.²⁶¹ Confidence intervals are regularly defined by an average and then a Margin of Error around that average. Mr. Gaskin did not provide such confidence intervals in his analysis.

²⁶¹ Diamond, Shari Seidman, 2011. "Reference Guide on Survey Research," in Reference Manual on Scientific Evidence, Third Edition, Federal Judicial Center, ("Diamond"), pp. 381-383, 416.

Utilizing the data provided to me, I calculated such confidence intervals, which are presented in *Figure 10* below. I also calculated confidence intervals for other subgroups of his sample.

Figure 10						
Weighted Average Importance of Mr. Gaskin's Attributes						
Attribute	All Participants (n=994)		Participants Who Applied, Accepted or Attended UD (n=187)		Participants Who Attended UD (n=49)	
	Average	Margin of Error	Average	Margin of Error	Average	Margin of Error
University Name	19.96	±3.89%	18.92	±8.70%	23.82	±13.56%
Undergraduate Teaching Ranking	9.63	±3.87%	9.45	±8.37%	8.95	±15.50%
Student-Faculty Ratio	6.59	±3.47%	8.54	±8.19%	9.03	±13.91%
4-Year Graduation Rate	11.31	±4.03%	12.97	±8.17%	9.01	±9.86%
Ethnic Diversity Index	6.93	±4.08%	7.21	±7.60%	8.99	±11.74%
Class and Campus Format	14.46	±4.65%	14.96	±9.14%	15.45	±16.58%
Tuition per Semester	31.11	±4.11%	27.95	±9.08%	24.75	±17.52%

This Figure shows 1) the importance of each of the attributes and 2) the difference in Margin of Errors when considering different subgroups of the sample.

First, University Name is the most important non-tuition attribute in the Gaskin survey. Such a result demonstrates the importance of correctly including relevant competitive universities in the conjoint analysis. Section VI.E.1.a above demonstrates that Mr. Gaskin did not do so. This result also demonstrates that University Name is not a “distractor” variable as Mr. Gaskin claims.

Second, Figure 10 above also demonstrates that Mr. Gaskin's survey respondents do not highly value the Student-Faculty Ratio, Ethnic Diversity Index, and Undergraduate Teaching Ranking. This result further calls into question the validity of Mr. Gaskin's survey. As noted above in Section VI.E, allegedly authoritative texts state that one should include all important attributes in a conjoint analysis. Because a surveyor does not want to include too many attributes in a survey, it is questionable whether Mr. Gaskin should have included the three aforementioned attributes and not others. A proper pretest, which Mr. Gaskin did not perform, could have shed light on such a question.

Third, Figure 10 also shows differences between respondent types. For example, while Mr. Gaskin's total participants did not highly value the Student-Faculty Ratio and Ethnic Diversity Index, Mr. Gaskin's participants who attended UD did more so. Because Mr. Gaskin based his conclusions on all participants in Mr. Gaskin's survey and his participants who attended UD possessed different preferences, his conclusions which are based on the former group, are not representative of putative class members who are likely more similar to the latter group.

Consequently, Mr. Gaskin's survey data shows that an individualized analysis of the putative class members is required to assess liability and damages.

3. Demographic Differences Show Individualized Results

It would be improper to proportionately allocate any total damages figure Mr. Weir might derive to each putative class member. Not only is it likely that many putative class members would say that they were undamaged, but there likely would be great variability in the amount those that say they were damaged were actually damaged.

Figure 11 below shows that there are significant demographic differences in Mr. Gaskin's survey respondents' attitudes towards the alleged in-person price premium. For example, Mr. Gaskin's results show that the gender and the timing of when a respondent applied to undergraduate education have vastly different results.

Figure 11 Demographic Differences for the Alleged Overcharge				
Characteristics	Participants	% of Total Sample (n=994)	Alleged Overcharge	Alleged Overcharge %
Gaskin	994	100.00%	\$2,614	15.16%
Gender				
Male	426	42.86%	\$1,785	10.35%
Female	568	57.14%	\$3,738	21.67%
When did you most recently apply for your undergraduate education?				
Applied within last 3 years	231	23.24%	\$1,812	10.51%
Applied between 3 and 10 years ago	339	34.10%	\$2,662	15.43%
Applied between 10 and 20 years ago	424	42.66%	\$3,347	19.40%

In particular, Figure 11 also shows that Mr. Gaskin's survey results show that younger students value in-person education less than older students. As putative class members likely would be similarly aged to Mr. Gaskin's respondents who applied to schools within the last three years, the Gaskin-Weir Hypothetical Model overstates alleged damages because it includes relatively unrepresentative older survey respondents in its calculations. Figure 11 shows that alleged damages could be approximately one-third lower if Mr. Gaskin's survey utilized respondents who were more age representative of putative class members (assuming the Gaskin-Weir Hypothetical Model had any validity whatsoever).

Additionally, individualized issues arise because Mr. Gaskin's survey results show that males value in-person education less than females.

These demographic differences necessitate an individualized inquiry to assess liability and damages in this matter, which Mr. Gaskin and Mr. Weir did not address.

VIII. The Gaskin-Weir Hypothetical Model Did Not Follow Standard Survey Practices

The Reference Manual, to which Mr. Gaskin cited,²⁶² details many steps required to perform an accurate survey. In the subsections below, I would like to specifically identify four steps that Mr. Gaskin did not properly perform.

A. Mr. Gaskin Did Not Perform a Full Pre-Test

The Reference Manual recommends surveyors utilize pre-tests to eliminate any ambiguity inherent in his survey. In particular, it states:

Texts on survey research generally recommend pretests as a way to increase the likelihood that questions are clear and unambiguous, [footnote includes the statement “No matter how closely a questionnaire follows recommendations based on best practices, it is likely to benefit from pretesting.”] and some courts have recognized the value of pretests. [footnote: See e.g., *Zippo Mfg. Co. v. Rogers Imports, Inc.*, 216 F. Supp. 670 (S.D.N.Y. 1963); *Scott v. City of New York*, 591 F. Supp. 2d 554, 560 (S.D.N.Y. 2008) (“[s]urvey went through multiple pretests in order to insure its usefulness and statistical validity.”)]²⁶³

Mr. Gaskin’s pretest did not attempt to clear up this ambiguity in his survey.²⁶⁴ As mentioned above in Sections VI.C. and VI.E.1.b., Mr. Gaskin 1) did not provide evidence from his alleged pretest that interactive terms would not be needed in his model and 2) utilize pretests as a screening task to identify the most relevant attributes “especially for high-involvement products and services described by many attributes,”²⁶⁵ like colleges and universities.

Judge Breyer also stated that Mr. Gaskin’s pretesting suffered from methodological flaws in pretesting when his testimony was excluded in *Jennifer Nemet et al. v. Volkswagen Group of America, et al.* Specifically, Judge Breyer stated:

Finally, Mr. Gaskin’s conjoint analysis suffers from other apparent methodological flaws. Conjoint analyses usually use “a pretest to ensure that questions on the final survey are not confusing [or] misleading, and accurately measure respondent preferences.” *MacDougall*, 2020 WL 5583534, at *7. Here, Mr. Gaskin’s pretest consisted of “interviews . . . with 20 respondents to ensure that they [*sic*] did not have difficulty with the questions and instructions; that they understood the choice exercise they were asked to perform; that they looked at all or almost all of the features in making their choices; that they did not think the questions were leading or biased; and that they felt the features were evenly presented.” Submission re Proof of Damages at 25 n.52 (quoting Gaskin Rpt.¶ 35). But these interviews

²⁶² Gaskin Report, Exhibit B and footnote 20.

²⁶³ Diamond, p. 388.

²⁶⁴ Mr. Gaskin was unable to recall any specifics from his pretests as they were conducted by a different entity, AMS, who did not record pretest results. Gaskin Report, Exhibit F-1.

²⁶⁵ Orme, p. 36.

consisted of “free form” conversations and were not standardized. Gaskin Tr. 232:9–22. Thus, any pretesting measured respondents’ impressions of the survey in a highly informal manner.²⁶⁶

Mr. Gaskin performed “free form” conversations and did not ask standardized questions with the ten initial respondents in the preliminary pretest.²⁶⁷ Mr. Gaskin did not demonstrate that this highly informal manner of pretesting properly measured respondents’ impressions of the survey for court submission.

B. Mr. Gaskin’s Target Population is Misdefined

Not only did Mr. Gaskin not perform a full pre-test, but he selected survey participants that were not representative of the putative class for his pre-test and final conjoint survey. It is improper to extrapolate from a non-representative sample or to a different universe than what is relevant for the study.

The Reference Manual explains the impact on a survey’s value when a sampling frame (i.e., Gaskin’s survey participants) is not representative of the target population (putative class members).

More commonly, however, the sampling frame and the target population have some overlap, but the overlap is imperfect: The sampling frame excludes part of the target population, that is, it is underinclusive, or the sampling frame includes individuals who are not members of the target population, that is, it is overinclusive relative to the target population.... If the coverage is underinclusive, the survey’s value depends on the proportion of the target population that has been excluded from the sampling frame and the extent to which the excluded population is likely to respond differently from the included population.²⁶⁸

Mr. Gaskin improperly defined the universe in his study. The Reference Manual states that “the target population...consists of all elements (i.e., individuals or other units) whose characteristics or perceptions the survey is intended to represent.”²⁶⁹ As Mr. Gaskin conducted the survey for this litigation, presumably his universe should be the putative class.

However, Mr. Gaskin testified that it was not:

Q. You testified that your target population is the UD students in the spring of 2020, right?

A. I think that’s the class population. That’s not the target population for this survey.²⁷⁰

In fact, Mr. Gaskin testified that he targeted U.S. residents over 16 years old who indicated they had personally applied to, been accepted, or attended UD or one of its competitors for

²⁶⁶ *Jennifer Nemet et al. v. Volkswagen Group of America, et al.*, p. 13.

²⁶⁷ Gaskin Report, Exhibit F.

²⁶⁸ Diamond, p. 378.

²⁶⁹ *Id.*, p. 376.

²⁷⁰ Gaskin Deposition, p. 195.

undergraduate education in the past 20 years.²⁷¹ This universe is not the same as the putative class. As a result, even Mr. Gaskin claims that his study was not meant to measure the effects on the putative class. This improper target population further fatally flaws the Gaskin-Weir Hypothetical Model.

C. Mr. Gaskin's Sample Survey Participants Are Not Representative of UD Undergraduate Students in Spring 2020

Survey respondents need to be representative of putative class members in order for the survey to have any probative value in assessing alleged damages.²⁷² Mr. Gaskin has not demonstrated such representativeness.

First, as he included people that “applied to the University of Delaware or one of its competitors for 4-year undergraduate education in the past 20 years,”²⁷³ many of his potential respondents likely would not have attended UD during the Spring 2020 Semester. As a result, Mr. Gaskin’s results would be based upon people whose characteristics likely would differ from those of putative class members.

Only 187 of 994 Mr. Gaskin’s total survey participants, or 18.8%, noted that they either applied to, been accepted to or attended UD in the past 20 years.²⁷⁴ Furthermore, only 49 or 4.9% of these participants allegedly enrolled at UD,²⁷⁵ and only 17 or 1.7% were corroborated to have attended UD, which is the most relevant criteria to the putative class.²⁷⁶ Therefore, Mr. Gaskin’s conjoint results were based on 98.3% of the participants not representing the putative class based on their actual university attendance. He proposed no method to measure and overcome such differences.

Second, the age of Mr. Gaskin’s survey respondents was not representative of UD students in Spring 2020. For example, 96% of UD undergraduates were less than 24 years old in Spring 2020,²⁷⁷ whereas only 34% of Mr. Gaskin’s survey respondents were between the ages of 16 and 29.²⁷⁸ As Mr. Gaskin allowed respondents to be 55 years old or older in his survey,²⁷⁹ he surveyed people who could be multiple decades removed from college. Such distance could alter people’s monetary perceptions. Mr. Gaskin proposed no method to measure and overcome such differences.

Third, Mr. Gaskin’s survey did not ask questions of the true monetary decision makers as parents sometimes pay for their children’s college education and set monetary parameters. Mr. Gaskin wrote that conjoint analyses would not be accurate if there are multiple decision makers.²⁸⁰ This

²⁷¹ Id., p. 184.

²⁷² Diamond, pp. 376-377.

²⁷³ Gaskin Report, paragraph 43.

²⁷⁴ Gaskin Report, Exhibit K-4.

²⁷⁵ Gaskin Report, Exhibit M & N.

²⁷⁶ Gaskin Report, Exhibit H-1.

²⁷⁷ <https://web.archive.org/web/20210805030045/https://nces.ed.gov/collegenavigator/?q=University+of+Delaware&s=all&id=130943#enrolmt>, viewed on August 31, 2022.

²⁷⁸ Gaskin Report, Exhibit M & N. Some of these respondents likely would be further unrepresentative as they were younger than 18 or older than 24.

²⁷⁹ Gaskin Report, Exhibit M & N.

²⁸⁰ Gaskin, p. 24-25.

is especially true in this matter as parents tend to be more interested in the outcome of their child's college years, while students can be more interested in "vibrant student activities."²⁸¹ Mr. Gaskin proposed no method to measure and overcome such differences.

Fourth, the residence of Mr. Gaskin's survey respondents was not representative of UD students in Spring 2020. For example, 36% of UD undergraduates were in-state students in Spring 2020;²⁸² whereas, only 3.4% of Mr. Gaskin's survey respondents live in Delaware.²⁸³ The residence of survey respondents could impact Mr. Gaskin's alleged in-person price premium because the List Price tuition differs for in-state (\$6,365) and out-of-state (\$17,080) students. Not only do the List prices differ, but in-state UD students who are loyal to their home state may value an in-person premium differently than people from other parts of the country.

Fifth, Mr. Gaskin's survey does not similarly ensure that the respondents would be representative of the in-state and out-of-state putative class members who are charged vastly different List Prices in Spring 2020. In fact, Mr. Gaskin's survey does not even hypothetically indicate if the choice set and List Price relates to an in-state or out-of-state resident, which would greatly impact a respondent's choice due to the difference in List Price. For UD, the out-of-state putative class members were charged more than double the in-state putative class members. Therefore, Mr. Gaskin's survey results would likely be skewed if the respondents and List Prices offered in the survey did not align with the actual distribution of in-state and out-of-state putative class members.

Without such representativeness being demonstrated, Mr. Gaskin and Mr. Weir cannot properly claim that their proposed methodology could accurately assess damages.

D. Mr. Gaskin did not Report on Response Rate and the Ability of the Sample to Represent the Target Population

Mr. Gaskin did not follow the Reference Guide on Survey Research guidance to propose a methodology to investigate any response difference between the excluded and included populations. In particular, Mr. Gaskin did not discuss the impact of having a low response rate to his survey, although it is required by the Reference Manual. The Reference Manual states that "[a] large nonresponse rate warns of bias" and requires the surveyor to provide "[e]vidence [t]hat [n]onresponse [d]id [n]ot [b]ias the [r]esults of the [s]urvey."²⁸⁴ Mr. Gaskin did not provide such evidence.

Furthermore, the Reference Manual states

Even when a sample is drawn randomly from a complete list of elements in the target population, responses or measures may be obtained on only part of the selected sample. If this lack of response is distributed randomly, valid inferences about the population can be drawn with assurance using the measures obtained from

²⁸¹ <https://www.usnews.com/education/best-colleges/slideshows/10-things-parents-of-college-bound-students-need-to-do?slide=5> viewed on October 20, 2021.

²⁸² UD_0045070.

²⁸³ Gaskin Report, Exhibit M & N.

²⁸⁴ Diamond, p. 226 & 383.

the available elements in the sample. The difficulty is that nonresponse often is not random....

The key to evaluating the effect of nonresponse in a survey is to determine as much as possible the extent to which nonrespondents differ from the respondents in the nature of the responses they would provide if they were present in the sample. That is, the difficult question to address is the extent to which nonresponse has biased the pattern of responses by undermining the representativeness of the sample and, if it has, the direction of that bias. It is incumbent on the expert presenting the survey results to analyze the level and sources of nonresponse, and to assess how that nonresponse is likely to have affected the results.²⁸⁵

Mr. Gaskin obtained his survey respondents from two lists: the Student List and the Non-student List. The Student List is a list of 15,000 email addresses of current and former UD students that the Defendant provided. The Non-Student List is a list of people recruited from Prodege, an internet survey panel company, who were not from the Student List and could have attended UD or any school Mr. Gaskin considered to be a “competitor.”²⁸⁶

Figure 12 shows the low response and completion rate for the Non-Student List, Student List, and the total from Mr. Gaskin’s survey. The low response and completion rate in total and the difference between the Non-Student and Student List shows that Mr. Gaskin should have provided evidence that his survey results were not biased.

Figure 12 Response & Completion Rate for Mr. Gaskin’s Survey ²⁸⁷			
Description	Non-Student List	Student List	Total
Invitations Sent	92,272	15,000	107,272
Total Responses	12,159	30	12,189
Response Rate	13.2%	0.2%	11.4%
Validly Completed	1,047	17	1,064
Completion Rate	1.1%	0.1%	1.0%

As shown in Figure 12, the response rate for Mr. Gaskin’s survey was only 11.4% in total, but it was only a mere 0.2% for the Student List. Mr. Gaskin even testified that the response rate was “abysmally low.”²⁸⁸ Further exacerbating his non-response issue, only 1.0% of the survey invitations sent in total were validly completed by respondents, with only 0.1% from the Student List. The Reference Manual states that “high response rates (i.e., 80% or higher) are desirable because they generally eliminate the need to address the issue of potential bias from nonresponse.”²⁸⁹ Mr. Gaskin’s response rates being well below this 80% threshold further requires that Mr. Gaskin provide evidence that the nonresponse rate inherent in his study did not bias his and Mr. Weir’s conclusions.

²⁸⁵ Id., p. 383.

²⁸⁶ Gaskin Report, paragraph 34-36.

²⁸⁷ Gaskin Report, Exhibit H.

²⁸⁸ Gaskin Deposition, p. 190.

²⁸⁹ Diamond, p. 384.

This low response and completion rate further demonstrates the flaws in and unreliability of the Gaskin-Weir Hypothetical Model. In particular, Mr. Gaskin is attempting to determine what the alleged price premium is for in-person compared to online education for UD undergraduates in Spring 2020. However, Mr. Gaskin's survey results include a much lower representation and response rate from UD students or alumni (i.e., the Student List) compared to other schools (i.e., the Non-Student List). Mr. Gaskin has not provided evidence that UD students or alumni from the Student List do not have different alleged price premiums for in-person compared to online education compared to non-UD students or alumni from the Non-Student List. For example, UD students or alumni that did not respond to Mr. Gaskin's survey could have been the result of them being satisfied with their online education and did not want to partake in the survey.

IX. The Prorate Model in the Gaskin-Weir Hypothetical Model Ignores Individualized Issues

Mr. Weir made the incorrect and unsupported prorate assumption that each day of the semester was equally valuable to students. While such an assumption is convenient and makes calculations easier, it likely is not economically correct.

Institutions can employ different pricing methodologies when selling their products and services. For example, an institution can opt to sell a single product or bundled set of products. Different pricing methodologies could be employed for each. For example, a grocery store could sell a six-pack of soda for \$3.00 and an individual can for \$1.00. A consumer cannot claim that the grocery store overcharged them for the individual can. Because different consumer types might desire an individual can over a six-pack, the grocery store utilizes different pricing methodologies that are fine-tuned to the characteristics of the consumers that tend to purchase the product in question. As a result, one cannot look at the price of the six-pack and assume that because six cans cost \$3.00, each can must cost \$0.50 ($= \$3.00 / 6$).

As discussed in my *Journal of Economic Behavior and Organization* paper, which was derived from my NSF funded research, whether the implied price of an individual product in a bundle is more or less than the price of the individual product if it was individually sold depends on the characteristics of the product and bundle. For example, convenience could cause consumers to purchase a bundle of a product and servicing of that product (e.g., extended warranty) even though it would be monetarily cheaper to purchase the product and servicing separately.

Current U.S. Treasury Secretary Janet Yellen co-authored with William James Adams one of the seminal economic articles on bundling in 1976.²⁹⁰ They concluded that one cannot draw conclusions about the prices of individual components of a bundle from the bundled price. The infinite set of possible individual component prices that could be derived from the bundled price "seriously complicates public appraisal of [and] affects certain conclusions that may be drawn."²⁹¹ As another author wrote regarding the possible individual component prices can be derived from a bundled price, "nearly anything can happen with bundling."²⁹²

²⁹⁰ Adams and Yellen, pp. 475-98

²⁹¹ Id., pp. 477 & 497.

²⁹² Varian, p. 628.

The Gaskin-Weir Hypothetical Model violates these economic maxims. In particular, they incorrectly assume that the List Price UD charged for an entire semester could be translated into a daily List Price. For the reasons discussed above, there are an infinite set of possible daily List Prices that could be derived from the List Prices that span an entire semester. Mr. Gaskin & Mr. Weir did not consider these possible differences in their proposed Gaskin-Weir Hypothetical Model.

As a result, the Gaskin-Weir Hypothetical Model is flawed and unreliable because it improperly purports to translate UD's semester-based List Prices into a daily List Price in Mr. Weir's proposed Prorated Damages Methodology. Daily List Prices are a vital input to Mr. Gaskin's calculations. If daily List Prices cannot be calculated, the Gaskin-Weir Hypothetical Model fails by definition.

Furthermore, it is questionable whether it is proper to analyze per semester prices to assess alleged damages. While students pay on a semester basis, most are pursuing a degree that spans multiple semesters. Consequently, one could contend that it is proper to analyze the overall cost of a degree, not the cost of an individual semester. If one accepts the Plaintiffs' allegation that students had no meaningful choice other than continue with the remote portion of the Spring 2020 Semester, one could contend that students who had enrolled at UD prior to the Spring 2020 Semester had no meaningful choice other than to continue with their education at UD given the costs involved in transferring universities. This allegation would then imply that it is improper to investigate the costs students incurred for a particular semester; rather, one would have to investigate the costs for all semesters needed to complete a degree. As the Named Plaintiffs did not analyze the cost of a UD degree, their proposed methodology did not address the question of interest under this scenario.

One standard economic maxim is that people generally obtain decreasing marginal utility for consuming products.²⁹³ In other words, the additional benefits one receives from consuming an additional unit of a product decreases as one consumes more. For example, a person generally gets greater benefits from consuming the first slice of pizza than the tenth slice.

The Gaskin-Weir Hypothetical Model does not consider whether students received greater benefits from in-person education and campus use during the approximately first half of the Spring 2020 Semester than they would have in the second half if the state-ordered closure had not occurred. There are an enumerable number of reasons why such an economic phenomenon could occur. For example, graduating seniors who had secured early employment or graduate school admission might view the second half of the Spring 2020 Semester differently than other students.

The degree to which students experienced decreasing marginal utility from in-person education and campus use would be individualized. Consequently, Mr. Weir cannot value putative class members potential losses by utilizing his prorate assumption.

Even if his prorate assumption were valid, individualized analyses would be required to determine the proper prorate percentage. Mr. Weir stated that the "%Prorate is the fraction of the days that students were taking online classes and not having access to the University campus divided by the total days that students would have otherwise had in-person classes and access to the University

²⁹³ <https://www.investopedia.com/terms/l/lawofdiminishingutility.asp> viewed on June 16, 2021.

campus.”²⁹⁴ However, individualized analyses would be required to determine both the numerator and denominator of this proportion.

For example, the Spring 2020 Semester ended with Finals Week. Students whose finals ended early during the Spring 2020 Semester might leave campus early as well. The number of “days that students were taking online classes and not having access to the University campus” and “the total days that students would have otherwise had in-person classes and access to the University campus” would be lower for such early leavers as compared to students whose finals ended later.

In addition, Mr. Weir does not demonstrate that the following would be identically situated with regards to his Prorate % factor:

- A weekend day where students had no classes, but did have access to campus and a weekday where students had access to both.
- A student who only had classes 2 days a week and one who had classes every weekday.
- A student who took more credit hours than another student.
- Students who went home for some or all weekends.
- Students like Ms. Russo who were intentionally enrolled in online classes during the Spring 2020 Semester.²⁹⁵
- Students who infrequently attended professor office hours.
- Students who ditched classes.

The aforementioned logistical issues make the claimed formulaic calculation of damages truly highly individualized, contrary to Mr. Weir’s unsupported assumption.²⁹⁶

As discussed above in Section V.A, UD’s ability to individually price allows them to act on such individualized issues.

X. Individualized Factors Predominate and the Gaskin-Weir Hypothetical Model Fails to Account for Those Concerns

Mr. Gaskin and Mr. Weir allege that putative class members received lesser benefits during the Spring 2020 Semester because students’ learning environment changed and their campus access changed. However, the magnitude of any change that might have occurred differed from student to student. Because of UD’s individualized pricing, Mr. Gaskin and Mr. Weir cannot ignore these individualized valuation factors in their Methodology.

The benefits students receive from classes vary with the classroom interaction among teachers and students. While students still interacted with teachers and with their peers during virtual classes,

²⁹⁴ Weir Report, paragraph 51.

²⁹⁵ Declaration of Hannah Russo in Support of Plaintiffs’ Motion for Class Certification (“Russo Declaration”), dated June 30, 2022., paragraphs 9-10.

²⁹⁶ While UD did reimburse room and board fees on a prorate basis, it did so as it attempted to be generous with students with a “students first” mentality to providing voluntary refunds to its students. Additionally, students generally utilize meals and lodging more consistently than other campus activities.

any alleged diminishment in classroom interaction from such classes compared to campus-based classes would be highly individualized.

For example, about half of the total course hours universities across the country deliver are high volume courses like Sociology 101.²⁹⁷ The classroom interaction in such classes likely could be less impacted by a move to virtual classes than specialized seminars.²⁹⁸ While students who attended large lecture classes in-person might not have had much classroom interaction in the first place, some students in small seminars might opt not to participate in classroom discussions irrespective of teaching environment. Teacher student interactions can also differ by major. While the number of full-time faculty members in majors like comparative literature and physics in general exceed the number of undergraduate degrees they annually award, other majors like psychology award 4 to 5 undergraduate degrees per faculty member.²⁹⁹ Additionally, classroom discussion, which could vary by class and student makeup, greatly affects learning.³⁰⁰

Mr. Gaskin and Mr. Weir did not propose any common, formulaic method to measure any value diminishment from his alleged lack of classroom interaction.

XI. Even if Plaintiffs Were Able to Demonstrate that UD's Spring 2020 Term Was Less Valuable, Putative Class Members Were Not Necessarily Damaged

The Gaskin-Weir Hypothetical Model is flawed and unreliable because, even if it generated a reliable reduced tuition, which it does not, that alone does not establish that any individual student actually suffered any damages. Individual student damages require a highly individualized analysis that must account for changes in student aid, expected family contributions, and other economic considerations that offset the alleged reduced tuition. Mr. Gaskin and Mr. Weir ignore and do not account for such considerations in their Methodology.

For example, students receiving financial aid might not be damaged.

University officers dispensing Federal and institutional need-based financial aid at least partially base their aid recommendations on the school's Cost of Attendance ("COA") and the student's Expected Family Contribution ("EFC").

Financial aid officers regularly address situations where a student's COA or EFC changes during a term. For example, some students' tuition is based upon the number of credit hours a student is taking.³⁰¹ If a student drops a class at the beginning of a term, the required tuition and fees and

²⁹⁷ <https://www.eurekalert.org/news-releases/783251> viewed on October 28, 2021.

²⁹⁸ Faculty without Students: Resource Allocation in Higher Education. William R. Johnson and Sara Turner *Journal of Economic Perspectives*: 23(2), 2009, p. 177.

²⁹⁹ *Id.*, p. 172.

³⁰⁰ Emanuel, Jeff and Lamb, Anne, "Open, Online, and Blended: Transactional Interactions with MOOC Content by Learners in Three Different Course Formats," working paper, 2015, p. 15-16 and author's personal teaching experience.

³⁰¹ UD_0188072-UD_0188073.

the COA would decrease. In such an instance, UD's Office of Financial Aid could reduce the grants or scholarships it awarded.³⁰²

In this lawsuit, students are seeking a refund of tuition. If such a refund were to occur, every student's COA would change. As a result, UD's Office of Financial Aid could recalculate the grants and loans it provided to all students. For example, suppose that UD's List Price for tuition and fees were \$17,000, and that UD's Office of Financial Aid determined that a given student's family should only contribute \$7,000 toward the student's education in that year. In this situation, UD would provide this student with a \$10,000 scholarship.

Assuming that the Finder of Fact in this lawsuit determines that the combined List Price for UD's tuition should have been \$1 lower. This would cause the total List Price for tuition and fees to fall to \$16,999. The Office of Financial Aid might still determine that the given student's family should only contribute \$7,000. In this revised situation, UD would provide this student with a \$9,999 scholarship.

In this example, the student would not be damaged by the supposed tuition overcharge. The student actually paid \$7,000 and would have paid \$7,000 if the tuition were "properly" priced. Therefore, this student incurred no out-of-pocket losses from UD's alleged actions.

Even if UD did not adjust this student's scholarship amount, they likely could not claim damages as they paid \$7,000 to receive something that had \$16,999 in value.

Additionally, COVID could further affect the student's available finances. While some families could have been adversely affected by COVID, others saw their financial positions greatly improved during the Spring 2020 Semester. As a result, students' EFC could also change, which could add additional individualized potential modifications to the financial aid UD provides its students. For example, as discussed below, many students received COVID-relief funds from UD during the Spring 2020 Semester.

Therefore, if it is determined that UD's tuition and fees should have been lower, at a minimum, UD's Office of Financial Aid could have to recalculate all the aid it provided students. To determine the amount that students were damaged by UD's allegedly improper tuition, one would have to, at a minimum, calculate the supposed tuition overcharge and subtract out any financial aid changes caused by COA and other COVID-related changes.

Because the aid the Office of Financial Aid provides is highly individualized, any aid recalculation also would be highly individualized. Consequently, properly determining any economic loss students might have suffered because of any alleged tuition and fee overcharge would also be highly individualized. As a result, I do not know how any economically proper refunds of these net prices could be calculated on a uniform formulaic, class-wide basis.

Essentially, the Plaintiffs are claiming that had they, and all other UD students, known that COVID were going to occur during the Spring 2020 Semester, they would have paid less for tuition than they actually did.

³⁰² UD_0188080-UD_0188081.

However, with such a claim, one must fully analyze all of the economic effects on the students; one cannot isolate one's analysis to just tuition.

For example, as of July 6, 2020, UD distributed over \$4.6 million in COVID-relief payments to students, [REDACTED]. Because these COVID-relief payments, like the alleged tuition overcharges, would not have happened but for COVID, any COVID-relief money students received would have to be subtracted from any damages award. Mr. Weir testified that CARES Act funds should not be deducted from any damages award;³⁰⁴ however, UD required students to certify their eligibility for the CARES Act grant funds by listing the amount of eligible COVID-19-related expenses the grant would offset. "Examples provided to the students to assist in determining cost-of-attendance-related expenses resulting from COVID-19 included food, housing, course materials, technology, health care, child care, and transportation from campus to home."³⁰⁵ As Plaintiffs have a duty to mitigate, the COVID-relief and other money that students would have received had they applied also needs to be subtracted from damages.³⁰⁶

Because students could have received different COVID-relief payments, this damages adjustment would also be individualized.

XII. Conclusion

I hold all opinions stated herein to a reasonable degree of economic certainty. As discovery is ongoing, I reserve the right to supplement and/or amend my opinions upon receipt of new or additional information.

September 2, 2022



Benjamin S. Wilner, Ph.D.

³⁰³ <https://www.udel.edu/students/student-financial-services/announcements/> viewed on July 18, 2022, UD_NIN0000012, UD_0187222 and UD_0187204. In total, UD distributed \$6.1 million in CARES Act funds to 10,734 students.

³⁰⁴ Weir Rough Deposition, pp. 67-69.

³⁰⁵ <https://www.udel.edu/students/student-financial-services/announcements/> viewed on July 18, 2022.

³⁰⁶ [REDACTED]

Michael Ninivaggi, Jake Mickey, Hannah Russo & Cailin Nigrelli vs. Univeristy of Delaware
Documents Considered

I. Legal Filings
Affidavit of Mary Booker, UD's Executive Director of Student Financial Services, dated August 26, 2022.
Affidavit of Rodney Morrison, UD's Vice President of Enrollment Management, dated September 2, 2022.
Cailin Nigrelli's Statement of Damages.
Consolidated Class Action Complaint ("Complaint"), dated September 3, 2021.
Declaration of Cailin Nigrelli in Support of Plaintiffs' Motion for Class Certification ("Nigrelli Declaration"), dated June 30, 2022.
Declaration of Hannah Russo in Support of Plaintiffs' Motion for Class Certification ("Russo Declaration"), dated June 30, 2022.
Declaration of Jake Mickey in Support of Plaintiffs' Motion for Class Certification ("Mickey Declaration"), dated June 28, 2022.
Declaration of Joshua D. Arisohn, dated July 1, 2022.
Declaration of Michael Ninivaggi in Support of Plaintiffs' Motion for Class Certification ("Ninivaggi Declaration"), dated June 30, 2022.
Defendant The University of Delaware's Answers and Objections to Plaintiffs' First Set of Interrogatories.
Defendant The University of Delaware's First Set of Interrogatories Directed to Plaintiffs.
Defendant the University of Delaware's Responses and Objections to Plaintiffs' First Request for Production of Documents.
Defendant the University of Delaware's Responses and Objections to Plaintiffs' Second Request for Production of Documents.
Defendant Univeristy of Delaware's Second Request for Production of Documents to Plaintiffs.
Defendant Univeristy of Delaware's Second Set of Requests for Admission Directed to Plaintiffs.
Defendant University of Delaware's Disclosure Pursuant to Paragraph 3 of the Default Standard for Discovery.
Defendant University of Delaware's First Request for Production of Documents to Plaintiffs.
Defendant University of Delaware's First Set of Interrogatories Directed to Plaintiffs.
Defendant University of Delaware's Second Request for Production of Documents to Plaintiffs.
Defendant University of Delaware's Second Set of Interrogatories Directed to Plaintiffs.
Defendant University of Delaware's Third Set of Interrogatories Directed to Plaintiffs.
Defendants Initial Disclosures.
Deposition of Amanda Jane Minner, dated May 31, 2022.
Deposition of Cailin Nigrelli, dated June 9, 2022 ("Nigrelli Deposition") & Exhibits.
Deposition of Hannah Russo, dated June 9, 2022 ("Russo Deposition") & Exhibits.
Deposition of Jake Mickey, dated June 9, 2022 ("Mickey Deposition") & Exhibits.
Deposition of Jose-Luis Riera, dated May 23, 2022.
Deposition of Michael Ninivaggi, dated June 9, 2022 ("Ninivaggi Deposition") & Exhibits.
Deposition of Robin Morgan, dated May 23, 2022 ("Morgan Deposition") & Exhibits.
Deposition of Steven Gaskin, dated August 12, 2022, ("Gaskin Deposition") & Exhibits.
Hannah Russo's Statement of Damages.
Jake Mickey's Statement of Damages.
James Nigrelli's Statement of Damages.
Memorandum on Motion to Dismiss, August 20, 2021.
Michael Ninivaggi's Statement of Damages.
Ninivaggi's Responses to UD's First Set of Requests for Admission.
Ninivaggi's Responses to UD's Second Set of Interrogatories.
Ninivaggi's Responses to UD's Second Set of Requests for Admission.
Ninivaggi's Responses to UD's Third Set of Interrogatories.
Plaintiff Cailin Nigrelli's Responses to Defendant University of Delaware's First Set of Requests for Admission.
Plaintiff Cailin Nigrelli's Responses to Defendant University of Delaware's Second Set of Requests for Admission.
Plaintiff Cailin Nigrelli's Responses to Defendant's Second Set of Interrogatories.
Plaintiff Cailin Nigrelli's Responses to Defendant's Third Set of Interrogatories.
Plaintiff Hannah Russo's Responses to Defendant's Second Set of Interrogatories.
Plaintiff Hannah Russo's Responses to Defendant's Third Set of Interrogatories.
Plaintiff Jake Mickey's Repsonses to Defendant University of Delaware's First Set of Requests for Admission.
Plaintiff Jake Mickey's Repsonses to Defendant University of Delaware's Second Set of Requests for Admission.
Plaintiff Jake Mickey's Responses to Defendant's Third Set of Interrogatories.
Plaintiffs' First Set of Interrogatories to Defendant.
Plaintiffs' First Set of Requests for the Production of Documents to Defendant.
Plaintiffs' Initial Disclosures.
Plaintiffs Jake Mickey's Responses to Defendant's Second Set of Interrogatories.
Plaintiffs' Objections and Responses to Defendant's First Set of Interrogatories.
Plaintiffs' Opening Brief in Support of Their Motion for Class Certification & Exhibits.
Plaintiffs' Response to Defendant's First Requests for Production.
Plaintiffs' Responses to Defendant University of Delaware's First Set of Request for Admission.
Plaintiffs' Responses to Defendant University of Delaware's Second Set of Request for Admission.
Plaintiffs' Responses to Defendant's Third Set of Requests for Production.
Plaintiffs' Responses to Second Requests for Production of Documents to Plaintiffs.
Rough Deposition Transcript of Colin B. Weir, dated August 19, 2022, ("Weir Rough Deposition").

**Michael Ninivaggi, Jake Mickey, Hannah Russo & Cailin Nigrelli vs. Univeristy of Delaware
Documents Considered**

II. Plaintiff's Expert Report
Declaration of Colin B. Weir ("Weir Declaration"), dated July 1, 2022.
Declaration of Colin B. Weir, ("Weir Report"), dated August 1, 2022.
Declaration of Steven P. Gaskin in Support of Class Certification ("Gaskin Declaration"), dated July 1, 2022.
Expert Report of Steven P. Gaskin ("Gaskin Report"), dated August 1, 2022.

III. Documents Received from Counsel
HR_0001-HR_0009
Spring 2018-2019-2020 UG Tuition-GRAD Tuition-AID.xlsx
U Del Confidence Intervals Results.docx
UD_0006378
UD_0008108-UD_0008114
UD_0009412-UD_0009415
UD_0013814-UD_0013818
UD_0020611-UD_0020617
UD_0037739-UD_0037740
UD_0045070
UD_0060437-UD_0060481
UD_0072018-UD_0072059
UD_0072694-UD_0072711
UD_0091079-UD_0091080
UD_0104753-UD_0104762
UD_0144656-UD_0144663
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UD_0166006-UD_0166009
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UD_0186437
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UD_0187220-UD_0187232
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Education

Kellogg Graduate School
 of Management,
 Northwestern University
 Ph.D.
 Managerial Economics
 and Decision Science

University of
 Pennsylvania
 BA magna cum laude
 with distinction in major
 Economics &
 Mathematics

London School of
 Economics
 General Course Degree
 Mathematics & Statistics

Dr. Benjamin Wilner has more than twenty years of advisory, valuation, and general economic & financial services experience as a consultant, academic & testifier. He is a Ph.D. economist and statistician who regularly serves as a consultant and testifying expert witness on financial damages, economic & statistical issues.

Dr. Wilner's disputes experience encompasses many industries and a broad range of single plaintiff, class action and criminal disputes including antitrust liability & damages, business interruption, business valuations, economic analyses, intellectual property, labor, lost income, product liability, statistical data analyses, and other corporate and litigation related matters.

In his consulting practice, Dr. Wilner advises corporations and governments on economic and statistical issues. For example, in addition to redesigning statistical aspects of an automobile manufacturer's warranty process, Dr. Wilner received a special commendation from the Commissioner of US Customs & Border Protection for building an economic model to restructure a \$2.5 billion tariff, which has won praise by a Cabinet member, Congressional officials, and the industry.

Prior to joining Alvarez & Marsal, Dr. Wilner worked at other multinational consulting firms. He also has been a professor in the business schools at the University of Michigan, University of Iowa, Northwestern University, and the Helsinki School of Economics. Dr. Wilner was a research assistant for a Nobel Prize-winning economist and studied under two other Nobel Laureates. His work has been published in leading academic journals and textbooks as well as regularly cited in the academic and popular press. Dr. Wilner won several awards for teaching and research including a grant from the National Science Foundation.

Testimony before a Trier of Fact

- Employment Hearing Testimony in Scott Coren v. Ronald Pieri, Board of Fire and Police Commissioners, Highwood, Illinois, October 2019 & January 2020
- Sentencing Hearing Testimony in United States v. Mark Hazelwood, United States District Court, Eastern District of Tennessee, September 2018
- Arbitration Testimony in Topix Media Lab, LLC, v. Athlon Sports Communications, Inc., American Arbitration Association, November 2017
- Trial Testimony in Syngenta Crop Protection, LLC v. Willowood, LLC, Willowood USA, LLC, Willowood Azoxystrobin, LLC, and Willowood Limited, United States District Court, Middle District of North Carolina, September 2017
- Trial Testimony in Christine Ekallipse Moulouki v. Marie Paule Epee and Eric Ngado Epee, United States District Court, Northern District of Illinois, Eastern Division, July 2017
- Trial Testimony in The People of the State of Illinois v. Ronald A. Pieri, State of Illinois, Circuit Court of Lake County, October 2015
- Trial Testimony in Sleepy's LLC, v. Select Comfort Wholesale Corporation, et al., United States District Court, Eastern District of New York, May – June 2012 & July 2015
- Trial Testimony in Grater, Inc., and James T. Zavacki v. Kevin T. Keating and Keating & Shure, Ltd., State of Illinois, Circuit Court of Cook County, March 2015
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- Trial Testimony in Sharon P. Clark, Commissioner of the Kentucky Department of Insurance, in her Capacity as Rehabilitator of AIK Comp v. TransAmerica Insurance Company and TIG Insurance Company, Commonwealth of Kentucky, Franklin Circuit Court, Division Two, October 2012
- Trial Testimony in Mario Vara v. Integra Properties, Inc., Abe Polatsek, S&M Corporation and Michael Strick, State of Illinois, Circuit Court of Cook County, July 2011
- Trial Testimony in Indeck Power Equipment Company v. Professional Power Products, et al., State of Illinois, Circuit Court of Cook County, April 2010



- Trial Testimony in Saint-Gobain Autover USA, Inc., et al. v. Xinyi Glass North America, Inc., et al., United States District Court, Northern District of Ohio, Eastern Division, November 2009
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- Arbitration Testimony in Global Link Logistics, Inc., GLL Holdings, Inc., and Golden Gate Logistics, Inc., v. Olympus Growth Fund III, L.P., et al., American Arbitration Association, October 2008
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- Hearing Testimony in Chinitz v. Chinitz, State of Michigan, Circuit Court for the County of Oakland, May 2008
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- Jennifer Pennington and Josh Pennington v. Memorial Hospital of South Bend, Inc. d/b/a Beacon Health and Fitness, Spear Corporation and Panzica Building Corporation, State of Indiana, St. Joseph Superior Court, April 2022
- Honeywell International Inc. v. North American Refractories Company Asbestos Personal Injury Settlement Trust, United States Bankruptcy Court, Western District of Pennsylvania, March 2022
- Astria Health v. Cerner Corporation and Cerner Revenue Cycle, LLC., United States Bankruptcy Court, Eastern District of Washington, March 2022
- Paul E. Dubuque v. Dubuque Coffee Co., LLC and Charles T. Dubuque, State of Illinois, Circuit Court of Cook County, October 2021
- Winamac Southern Railway Company v. Irving Materials, Inc., State of Indiana, County of Howard, October 2021
- Brooke Smith v. The Ohio State University, Court of Claims for the State of Ohio, September 2021
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- In re: Hardieplank Fiber Cement Siding Litigation, United States District Court, District of Minnesota, February 2016



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- Churchill Downs Incorporated v. Illinois Department of Revenue, Brian Hamer, as Director of The Illinois Department of Revenue, and Dan Rutherford as Treasurer of the State of Illinois, State of Illinois, Circuit Court of Cook County, August 2014
- Victor Tracy, Power of Attorney for Anne Tracy and Victor Tracy, Individually v. Robert K. Erickson, M.D., Lake County Neurosurgery, LLC, Advocate Condell Medical Center, State of Illinois, Circuit Court of Cook County, July 2014
- Marylee Arrigo v. Link Stop, Inc., et al., United States District Court, Western District of Wisconsin, October 2013
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- Continental Datalabel, Inc. v. Avery Dennison Corporation, United States District Court, Northern District of Illinois, Eastern Division, December 2011
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- Jessica Ellen Legens, et al. v. Mark Alan Ikerman and Manheim Services Corporation, d/b/a Manheim Gateway St. Louis, et al., State of Illinois, Circuit Court of Madison County, November 2010
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- Sleepy's LLC, v. Select Comfort Wholesale Corporation, et al., United States District Court, Eastern District of New York, July 2009
- Indeck Power Equipment Company v. Professional Power Products, et al., State of Illinois, Circuit Court of Cook County, September 2008
- NSM Music Group, Ltd. and NSM Music, Inc. v. Synergy Law Group and Arthur E. Mertes, State of Illinois, Circuit Court of Cook County, May 2008
- Maria Belbis, et al. v. County of Cook, United States District Court, Northern District of Illinois, Eastern Division, January 2008
- Bucyrus International, Inc. v. Price Erecting Company and Kentucky Rebuild Corp., State of Wisconsin, Circuit Court of Milwaukee County, October 2007
- Mark A. Sindecuse, M.D. v. Dean M. Katsaros, Katsaros & Associates, and CIB Marine Bancshares, Inc., United States District Court, Eastern District of Missouri, Eastern Division, June 2007
- Quentin Bullock et al., v. Michael Sheahan and Cook County, United States District Court, Northern District of Illinois, Eastern Division, September 2006

Awards

- National Science Foundation Grant, 1998
- Old Gold Research Fellowship, University of Iowa, Summer 1997
- Outstanding Professor, University of Iowa Panhellenic Council, Fall 1996
- Doctoral Teaching Award, Kellogg Graduate School of Management, 1994

Professional Memberships

- American Bar Association (Associate Status)
- American Statistical Association
- Credit Research Foundation (Research Fellow)

Publications

- "Sampling is Harder and Cheaper than You Think" *Raising the Bar*, January 2021
- "Does (Sample) Size Matter" *For the Defense*, February 2019
- "The U.S. Federal Crop Insurance Program in 2012 and Beyond," (with Frank Schnapp) *Trébol*, July 2013



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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

PENNY NINIVAGGI et al., individually and
on behalf of all others similarly situated,

Plaintiffs,

v.

UNIVERSITY OF DELAWARE,

Defendant.

Civil Action No. 20-cv-1478-SB

HANNAH RUSSO, individually and on be-
half of all others similarly situated,

Plaintiff,

v.

UNIVERSITY OF DELAWARE,

Defendant.

Civil Action No. 20-cv-1693-SB

AFFIDAVIT OF RODNEY MORRISON

STATE OF DELAWARE)
) SS.
COUNTY OF NEW CASTLE)

I, Rodney Morrison, being of lawful age and from my personal knowledge, state:

1. I am the Vice President for Enrollment Management at the University of Delaware (the “University”). I have over twenty-five years of strategic enrollment leadership experience. I have been in my current position with the University since September 2019. Prior to my current position at the University, my previous positions in academia included: associate Provost for Enrollment Management at Stony Brook University; Associate Chancellor for Enrollment Management at Rutgers University, Camden Campus; Director of Admissions at Mount Saint Mary College, NY;

Associate Director of MBA Admissions and Financial Aid for the Wharton School MBA Program; Senior Admissions Officer and Director of Minority Recruitment at the University of Pennsylvania; and Assistant Director of Admissions at the University of Rochester, NY.

2. I am submitting this affidavit as evidence in connection with the University's Expert Report of Benjamin Wilner. I have reviewed the materials submitted to me by the University's counsel in this case, including the Expert Report of Benjamin Wilner ("Wilner Report") and the Expert Report of Steven Gaskin ("Gaskin Report").

3. As Vice President for Enrollment Management, I supervise the Undergraduate Admissions office ("Admissions Office"), the Office of Student Financial Services ("Student Financial Services"), and the Registrar's Office.

4. I was in my current position at the University when the executive orders issued by Governor Carney in response to the pandemic forced the University to quickly transition to remote learning.

5. As a professional with a great deal of experience in the recruiting, admission, and retainment of undergraduate and graduate students, and due to the nature of my position, I am qualified to speak regarding the University's recruiting and admissions.

6. By virtue of my supervision of the University's Admissions Department, I am familiar with the University admissions and enrollment process, which informs my knowledge of the University's student body's demographics and characteristics. These statistics are tracked by the Admissions Office in its ordinary course of business.

7. Also in my role as supervisor of the Admissions Department, I am responsible for supervising the University's recruiting programs. As a part of our enrollment effort, the University recruits students from both inside and outside the United States.

8. The University advertises on the internet, which links to the University's website and its recruiting materials. The University also sends its recruiting materials through traditional and electronic mail to prospective applicants. The University receives the names, addresses, and email addresses for prospective students through the companies administering the PSAT, SAT, and ACT and other sources. The University does not have knowledge of where the prospective students are when they are exposed to the recruiting materials the University disseminates.

9. Also as a part of its enrollment effort, the University visits and sends recruiting materials to high schools around the United States for dissemination to prospective students. The Admissions Office sends representatives to several high schools and college fairs across the country and internationally. The University also recruits and matriculates athletes from around the world with some receiving various amounts of scholarships and financial aid.

10. The University's Spring 2020 Student Body reflected that broad recruitment effort—including students from over 30 countries and 35 states. Those countries include: India, China, South Korea, Germany, Ghana, Mexico, UK and Nigeria. The states represented in the Spring 2020 Student Body include: Delaware, New Jersey, New York, Pennsylvania, Maryland, Connecticut, Massachusetts, Florida and California.

11. The University has no knowledge of where those students were when they were exposed to the University's recruiting materials. The University has no knowledge of or a way of ascertaining what recruiting materials the students within the University's Spring 2020 Student Body were exposed to or relied upon in making their decision to attend the University.

12. In my experience, students select the University for a variety of reasons, whether it is the availability and quality of a particular major, the University's proximity to their home or family, or any other of a number of reasons.

13. In fact, in the ordinary course of the University's business, it tracks the stated reasons students matriculate to the University. The University administers surveys and other tools to track the reasons and keeps statistics on that data.

14. That said, in reviewing the Gaskin Report, the six "attributes" the Gaskin Report cites on page 13 do not represent even a small portion of the universe of reasons students select the University as their school of choice. The Gaskin attributes included:

- University name
- Undergraduate Teaching Ranking
- Student-Faculty Ratio
- 4-Year Graduation Rate
- Ethnic Diversity Index
- Tuition per Semester

15. Looking at the University's data, the students select the University for a number of reasons, including: strengths of the school's educational programs including choice of major, research opportunities, extra-curricular clubs, activities, organizations and school's athletics teams, geographic location between NYC, Philly & DC, proximity to home, school spirit & culture, post graduate opportunities and success, family who previously attended the school, among many others.

16. As such, it is difficult, as an individual with over 25 years of experience in admissions and enrollment, to understand how the Gaskin Report effectively accounts for the multitude of factors prospective students consider when choosing to attend the University. The Gaskin Report, as I understand it, does not present a realistic approximation of the process by which a prospective student chooses a school to apply to and ultimately enroll in. In my experience, prospective students are not a monolith. An individualized assessment of each student would be the only way to reliably determine what factors drove their individual decision to attend the University.

17. The Admissions office is also responsible for transmitting acceptance letters to prospective students (“Acceptance Letters”) who have been accepted by the University. Each school within the University’s undergraduate program creates its own Acceptance Letter which highlight different aspects of the various programs. Thus, depending on the program the student is entering, the student is exposed to different information promulgated in their respective Acceptance Letters. This would further contribute to the need to conduct an individualized assessment of each student to determine what factors were important to them in deciding to pursue their higher education at the University.

18. To track the progress of various initiatives, the Admissions Office also conducts assessments of the University’s various competitors. There is generally healthy competition for students amongst institutions of higher education—the same schools tend to compete for the same students. To determine the University’s competitors, the Admissions Office tracks where the University’s applicants also apply. By determining the University’s competitors in this way, it provides a realistic assessment of the other schools’ applicants to the University are considering.

19. In reviewing the Gaskin Report, it became clear that the competitors identified on page 22 of the Report are not an accurate portrait of the University’s competitors. In fact, only one of the four schools identified is a competitor of the University—University of Maryland, College Park. The University’s biggest competitor is Pennsylvania State University. The University’s other competitors include Rutgers University, University of Connecticut, Binghamton University, University of Pittsburgh, University of Michigan, Michigan State University, Virginia Polytechnic and State University, Temple University, University of South Carolina, James Madison University and Villanova University. As discussed above, the Gaskin Report only includes one of these schools.

Rodney Morrison
Rodney Morrison

SWORN AND SUBSCRIBED

BEFORE ME this 2nd day of September, 2022.

Jennifer M. Becnel-Guzzo
Notary Public / Attorney

JENNIFER M. BECNEL-GUZZO
Attorney at Law - State of Delaware
Notarial Officer Pursuant to
29 Del.C. § 4323(a)(3)
My Commission Has No Expiration Date

My Commission Expires on N/A